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MATERIALS

Steep-Slope

GUIDE

The information source on residential steep-slope roof membrane products for the roof designer, specifier, installer, manufacturer, and user

NATIONAL ROOFING CONTRACTORS ASSOCIATION

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The *Residential Steep-Slope Roofing Materials Guide*

Introduction

The *Residential Steep-Slope Roofing Materials Guide*, published annually by the National Roofing Contractors Association, is a comprehensive report on steep-slope roof membrane products used primarily, but by no means exclusively, in the residential market. It also provides pertinent information on the companies that manufacture and/or market these products.

The *Residential Guide* is published as a service to the roofing industry. Its objective is to provide information that will be helpful to users in determining which generic and specific products will serve their particular needs. It is of special value to those associated with the design, specification, application, and use of residential and/or steep-slope roof systems.

The NRCA *Residential Steep-Slope Roofing Materials Guide* maintains a policy of total objectivity in its reporting of data. Nothing is required from companies that manufacture and/or market listed products other than adherence to a prescribed reporting format. Any manufacturer/dealer of products included in the *Residential Guide* can participate by submitting information on their company and products in accordance with procedures developed for this purpose. Companies involved only in the distribution of other companies' brand-name roofing products are not included in this publication. For further information, write: National Roofing Contractors Association, 10255 W. Higgins Road, Suite 600, Rosemont, Ill. 60018-5607.

NRCA exercises due care in accurately reporting the data as supplied by participating manufacturers/dealers but does not audit test procedures used to arrive at the reported data, nor does NRCA assume responsibility for the accuracy or completeness of the data submitted. The presence or absence of a listing of a product, manufacturer, or dealer in the *Residential Guide* does not imply NRCA approval or disapproval of the product or company, nor does NRCA recommend the use or avoidance of use of specific materials.

NRCA does not develop standards but instead works toward and supports the improvement of existing standards and the development of new ones by those organizations responsible for standards development. The fact that products listed in the *Residential Guide* do or do not meet all of the values of the reference standards, documents, recommendations, or criteria does not necessarily imply that they will or will not produce acceptable roof systems.

Notes on the 1993 Edition

This first edition of the *Residential Steep-Slope Roofing Materials Guide* contains neither all possible categories of residential steep-slope roof membrane products nor all those that NRCA anticipates adding down the road. Specifically, wood shakes and shingles and underlayments have been omitted pending research on their adaptability to the *Residential Guide* format. In addition, there are products that are regularly used in residential applications that are to be found in NRCA's companion publication, the *Commercial Low-Slope Roofing Materials Guide*; among these are modified bitumen membrane sheets; some metal roof systems with both architectural and structural applications; and, of course, roofing felts, which are described in the built-up roofing section of this commercial product guide. Whether future editions of the *Residential Guide* will duplicate product information found in the *Commercial Guide* remains to be determined as well.

It should be noted additionally that, when applied to the roofing market, the terms *residential steep-slope* and *commercial low-slope* are by no means definitive. Even granting a generally accepted definition of *steep* for a roof exceeding a pitch of 3 in 12 (4 in 12 ?), such roofs are commonly used in commercial applications (e.g., offices, restaurants), and low-slope roofs are employed regularly in residential structures (e.g., porches, car ports, garages, townhouses). Tradition, however, tends to associate specific kinds of products with either residential or commercial applications regardless of the true (or changing) use of the material. It is primarily for this reason that the division of product categories, as well as the titles, have been adopted for NRCA's two product directories.

It should be emphasized that, because this is the first edition of the *Residential Steep-Slope Roofing Materials Guide*, it is not as widely known in the industry as its well-established cousin, the *Commercial Low-Slope Roofing Materials Guide*. For this reason, some manufacturers or marketers of residential roofing products may have failed to supply NRCA information. In addition, despite the fact that a substantial effort was made to identify and contact all manufacturers and dealers of residential steep-slope products, some may have been omitted from the roster of potential listers. For these reasons, it is particularly important to heed the previous caveat that the presence or absence of a product, manufacturer, or dealer does not imply NRCA approval or disapproval of same.

How the *Residential Steep-Slope Guide* is Organized

The *Residential Guide* is divided by product category into seven different sections. There is an overall index of manufacturers/dealers that lists company information and the product category(ies) in which the company's products appear, including the number of the page on which they are listed. There is an appendix divided by product category in which manufacturer-supplied information appears that expands on or is in addition to data listed in the category section itself. Appendix information can be found for products when an *X* appears in the space at the end of the listing entitled "See Appendix if Checked."

In reviewing the data in the *Residential Guide*, the user should keep in mind that the format is designed to facilitate the side-by-side comparison of products. For this reason, listers can only respond to existing items of requested information; they cannot add their own. Nor is footnoting permitted in *Guide* listings; listers instead may expand on or clarify an item of information by providing copy for the Appendix.

Technical Information on Products in the *Residential Guide*

There are generally three categories of technical information for which data is requested in the *Residential Steep-Slope Roofing Materials Guide*: (1) fire and wind ratings, according to Underwriters Laboratories (UL), Factory Mutual (FM), and/or ASTM standards or test methods; (2) ASTM performance-related standard specifications and/or standard test methods; and (3) building code approvals by code setting bodies and/or governmental jurisdictions; these include Building Officials & Code Administrators International, Inc. (BOCA), Southern Building Code Congress International (SBCCI), International Conference of Building Officials (ICBO), and several municipal and regional jurisdictions.

In the majority of cases, the data requested is for specific ratings or standards that are generally regarded in the industry as appropriate to the particular product category to which they apply. In a few cases—for example in the synthetic roof component section—the listing manufacturer may provide test results according to whatever methods are deemed appropriate for the product being listed. This is because the category encompasses a variety of disparate products that are not generally measured according to the same criteria.

It should be pointed out that the development of standard specifications and test methods is a continuous process; many are under consideration by standard-setting bodies, such as ASTM, at any given point in time. The fact that a draft standard is being evaluated or exists in a proposed form does not make it useable by the *Guide*. Proposed standards or proposed revisions of existing standards are just that—proposed—and their use as a reference is often contrary to the policy of standard-setting bodies. For this reason, only standards that have undergone all formal approval procedures by the organizations identified with them are used in this publication.

Fire and Wind Ratings

The reference standards or tests for fire and wind ratings in the *Residential Guide* are:

ANSI/UL Standard 790 *Tests for Fire Resistance of Roof Covering Materials*

ASTM Standard E 108 *Standard Test Methods for Fire Tests of Roof Coverings*

UL Standard 997 *Wind Resistance of Prepared Roof Covering Material*

UL Standard 580 *Tests for Wind-Uplift Resistance of Roof Assemblies*

ASTM Standard D 3161 *Standard Test Method for Wind-Resistance of Asphalt Shingles*

In addition, reference may be made to Factory Mutual (FM) approval for wind-uplift (see item 10 in the metal roof components section) or to FM approvals in general. These references are to the Factory Mutual System Approval Standard *Class I Roof Covers, Class Number 4470*, discussed in more detail below.

Underwriters Laboratories (UL) Standards The performance criteria for roof covering material and ratings of individual products are published in UL's *Roofing Materials and Systems Directory*, available from UL; the ratings derive from tests performed by UL on products provided for this purpose. The fire-resistance ratings are Class A, B, or C based on tests conducted under UL 790 and, additionally, approval or disapproval under the wind-resistance tests found in UL 997. (A full description of these tests is also available from UL.) Class-A products are defined as those "roof coverings...effective against severe fire exposures...[that] under such exposures are not readily flammable...; offer a fairly high degree of fire protection to the roof deck; do not slip from position; possess no flying brand hazard; and do not require frequent repairs to maintain...-fire-resistance properties." Class-B roof coverings are "effective against moderate fire exposures," "offer a moderate degree of protection...," and "require occasional repairs...." Class-C products are effective against "light" fire exposure, provide only "some" degree of protection, and require "infrequent repairs...."

It should be pointed out that an individual product may have more than one rating, depending

on the total roof system in which it is employed. For this reason, it is always advisable to refer to the UL Directory concerning the classification of any roof covering material.

The second UL wind-related standard referenced in the *Residential Guide* is 580 *Tests for Wind-Uplift Resistance of Roof Assemblies*. The tests are described as being applicable to any type of roof assembly that is adaptable to the test equipment. The ratings that can result from the tests are Class 15, Class 30, Class 60, and Class 90. The classification depends on an evaluation of the comparative resistance to negative and positive pressures simulating the effects of wind velocities of 73 to 174 miles per hour.

Factory Mutual (FM) FM standards recommend design criteria for consideration by the building owner's architect or engineer. To confirm that a product or building assembly will perform satisfactorily under actual fire, wind, or other conditions, Factory Mutual develops performance standards that test the product under simulated field conditions. FM standards for building products are written for a specific end-use in mind. They involve the owner and the installer, both of whom rely on a product's behavior under a variety of use conditions. The FM performance ratings are published in the FM *Approval Guide* and its three supplements, which are prepared at four-month intervals before the subsequent annual edition of the *Approval Guide* is printed.

Roof Cover Standard 4470 contains requirements that test products, as follows:

Fire spread below the roof deck A Class-I fire rating means that the building owner is not required to install automatic sprinklers below the deck for its protection because the heat-release rate of the roof system is within allowable FM limits. The Class-I fire rating involves the most severe testing for any building assembly.

Fire spread across the roof cover The FM rating for fire spread across the cover and insulation can be IA, IB, or IC depending on the length of spread under ASTM E 108 fire testing. The insulation beneath the cover is a part of the rating, both as pertains to fire resistance and wind blow-off.

Windstorm rating (I60, I90) The "I" in the windstorm rating refers to the Class I fire rating possessed by the roof assembly; the number 60 or 90 refers to the wind pressure in pounds per square foot that the roof assembly was subjected to.

Hail, leakage, weathering, and corrosion FM 4470 incorporates performance tests for each of the potential problems listed above, but the tests are made on the entire system, not individual components.

ASTM Standards The primary fire-related ASTM standard appearing in the *Residential Guide* is E 108 *Standard Test Methods for Fire Tests of Roof Coverings*. The tests are quite similar to UL 790 and, as seen above, form the basis for the fire-spread-across-roof-cover portion of FM 4470. The classes of fire exposure are also A, B, or C, the definitions for which are essentially the same as those found in UL 790.

In some instances the option is given to listers in the *Residential Guide* to reference ASTM E 108 rather than UL 790. This allows them to furnish results of tests that may have been performed on their products by an independent laboratory rather than by UL.

The ASTM wind-related standard referenced in the *Residential Guide*, D 3161, tests the two types of shingles considered "wind-resistant": self-sealing, classified as Type I, and lock-type, or interlocking, classified as Type II. Any assembly "that restrains full shingle tabs from lifting, or locking ears from tearing loose or disengaging" passes the test.

ASTM Performance Standards

Other ASTM standards referenced in the *Residential Guide* and the product categories to which they apply are:

Standard	Product Category
ASTM D 225 *Standard Specification for Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules*	Asphalt Shingles
ASTM D 3018 *Standard Specification for Class A Shingles Surfaced with Mineral Granules*	Asphalt Shingles
ASTM D 3462 *Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules*	Asphalt Shingles
ASTM C 1167 *Standard Specification for Clay Roof Tile*	Clay Tile
ASTM C 408 *Standard Specification for Roofing Slate*	Slate
ASTM E 283 *Standard Test Method for Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors*	Metal Roof Components
ASTM E 331 *Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference*	Metal Roof Components

With the exception of ASTM E 283 and ASTM E 331, listers are not expected to provide the actual test results, only whether the product passed the test(s) in the standard (i.e., *complied* with the standard), as well as any classification under which the product falls for testing purposes or as a result of the test(s). The possible responses are listed under the standard in the appropriate section of the *Residential Guide*.

It should be pointed out that the abbreviation *NA* is used throughout the *Residential Guide* to indicate "not applicable." The use of *NA* is limited to those cases in which a standard does not, by its nature, apply to the particular product; for example, it would be appropriate for a manufacturer of an organic asphalt shingle to enter NA next to ASTM D 3462, because this standard only applies to shingles made of glass fiber. It is inappropriate for a lister to indicate NA for any other reason, e.g., the manufacturer doesn't believe that a test method is valid and therefore shouldn't apply to his product. In such cases, the editors of the *Residential Guide* will delete the *NA*, and no response will appear. Although the reader cannot know whether the space was left blank by the lister or was rendered blank editorially, the net effect is the same.

Building Code Approvals

For many of the product categories in the *Residential Guide* is a space for listers to enter code approvals; entitled "Accepted by the Following Codes," this is where the acronyms for code-setting organizations will be found and also where some government jurisdictions that use their own code approvals will be listed (e.g., Metro.-Dade County, City of Los Angeles). This information is provided as a quick reference for the *Guide* user only; it is necessary to refer to the publications of the organizations to understand the context in which these approvals are given. Each of the organizations has its own set of criteria, and each region of the country sets codes based on the recommendations of one or another of the code-setting bodies. The *Guide* user needs to determine which set of criteria in general is relevant to his particular locality and then understand what the approval process for the particular code-setting organization implies.

Follow is a list of the publications produced by the code-setting organizations and where they may be obtained:

BOCA publishes *The BOCA National Building Code/Year*; 4051 W. Flossmor Rd., Country Club Hills, Ill. 60477

ICBO publishes *Uniform Building Code (UBC)*; 5360 So. Workman Mill Rd., Whittier, Calif., 90601. ICBO also has the ICBO Evaluation Service that issues reports on individual products, including test results; report numbers listed in the code approvals section of the *Residential Guide* are references to the evaluation service report numbers issued by ICBO. The reports are generally available from manufacturers upon request.

SBCCI publishes *Standard Building Code — Edition*; 900 Montclair Rd., Birmingham, Ala. 35213

It should be noted that federal specification numbers are not provided for in the *Residential Guide*; this information may be included in Appendix data on the product if the lister provides it and wishes it published.

Residential Steep-Slope Roofing Materials Guide Order Form

Please enter my order for the most recent edition of the *Residential Steep-Slope Roofing Materials Guide*.

Per-Copy Cost

Quantity	NRCA member	Nonmember	Order Quantity	Total Amount
1–3 copies	$50 per copy	$75 per copy	_____	$_____
4–15 copies	$42 per copy	$50 per copy	_____	$_____
16–25 copies	$40 per copy	$49 per copy	_____	$_____
26–35 copies	$38 per copy	$47 per copy	_____	$_____
36–45 copies	$36 per copy	$45 per copy	_____	$_____
Over 45 copies	$34 per copy	$43 per copy	_____	$_____

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Name

_____

Company/organization

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Mailing address

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City/state/zip phone ( )

[ ] I wish to order ___ copies of the NRCA *Residential Steep-Slope Roofing Materials Guide*.

[ ] Enclosed is a check in the amount of $_____.

[ ] Charge the amount of $_____ to:

[ ] VISA [ ] MasterCard [ ] American Express

_____

Account no. Exp. date Authorized signature

Payment must accompany order.
Please make check payable to NRCA and mail to: National Roofing Contractors Association, P.O. Box 4752, Carol Stream, IL 60197-4752.

Information on Residential Steep-Slope Roof Membranes

Asphalt Shingles

General Information

Asphalt roofing material is used both as underlayment (and interlayment) and as roof coverings. As underlayment, saturated felts provide secondary protection beneath the roof covering material but are not themselves exposed to the elements. Asphalt shingles, together with roll roofing materials, afford the primary protection in the roof systems in which they are used.

Asphalt shingles are composed of (1) a base material, either organic felt or glass fiber mat, that provides support for the waterproofing components and gives the shingle strength; (2) asphalt; and (3) surfacing material, generally in the form of mineral granules, that provides protection from impact and ultraviolet degradation and improves fire resistance.

The most common form of asphalt shingles are strip shingles (see Fig. 1). They are rectangular, the most prevalent size being 12 inches wide by 36 inches long (metric shingles are 13 1/4 inches by 39 3/8 inches). They most frequently have three or four tabs that are exposed along the length of the shingle for visual effect. Strip shingles are also produced without cutouts and with tabs that are randomly distributed, called "random tab" shingles.

Shingles may be produced in single thickness or with more than one thickness. The latter are generally known as laminated shingles, and they have a three-dimensional appearance.

The term *self-sealing* refers to the effect of the addition of a strip of factory-applied adhesive to the shingle, which is activated by the sun's heat after installation and "seals" each shingle to the one below it. This provides greater wind resistance to the system.

Another way to achieve wind resistance is through use of the interlocking, or "lockdown," shingles. They rely on locking mechanisms instead of sealant for fastening to the roof.

The granule surfacing provides the wide color range in which shingles are available today.

Notes on the Asphalt Shingles Section

The following information is offered to assist in the interpretation of the data elements in the asphalt shingles section.

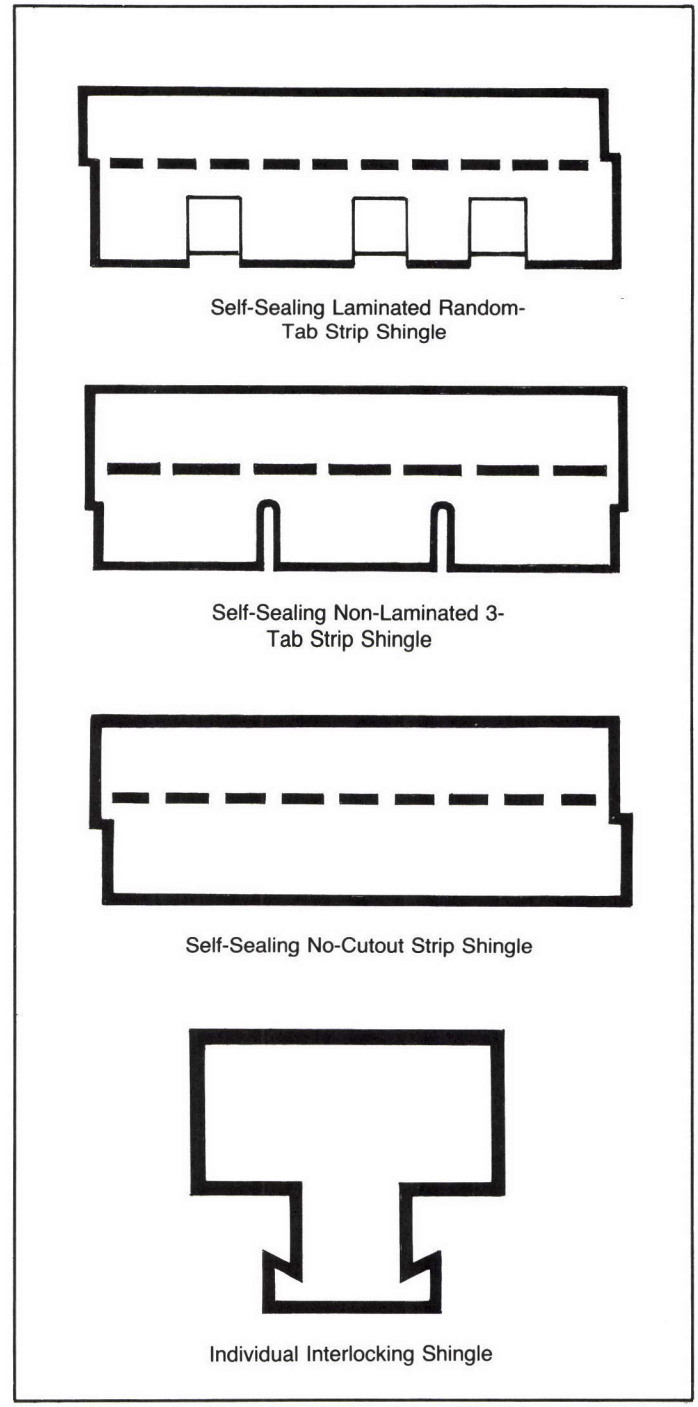


Figure 1 Types of Shingles

Part 1 General Information

Item 3 *Product Description* Data concerning the number of colors in item 3D may be split with a slash (/), which indicates color availability by

region. More details may be provided by manufacturers in the Appendix on regional color availability for their products.

Item 5 *Availability Restricted Regionally* Because of design or appearance considerations, some shingles are produced for specific regions of the country only. In such cases, availability of the shingle may be limited to regional distributors or service locations.

Item 6 *Dimensions and Coverages* Item 6B provides for information for a second size of a particular shingle, such as a metric variant. The absence of an entry in 6B implies that the only size available is the one listed in 6A.

Item 7 *Hip and Ridge Shingles Available* Manufacturers indicate here whether accessory shingles are available for a product nationally, regionally, or not at all. An answer of *NO* does not necessarily imply that the accessory products are <u>needed</u> but not available; it may simply be that special shingles are <u>not</u> needed (and therefore not available).

Item 8 *Slope/Underlayment Recommendations* However "normal" application is defined by a manufacturer, the minimum slope is provided followed by the recommended underlayment. If application is allowed at less than the "normal" slope, the absolute minimum slope is provided followed by the underlayment recommended for that "special" application. The absence of data for a "special" application generally implies that none is permitted.

Item 12 *Distribution* The only permitted responses to items 12A and 12B are *NO* (indicating that a product is not marketed by distributors or directly) or a number (of distributors or direct service locations). Responses of *YES* were not permitted, and, in cases where numbers were not provided, the response appears blank.

Part 2 Technical Data

Item 4 *Complies with:* The permitted responses for ASTM standards are provided parenthetically. The appearance of *NA* is appropriate for those products that are excluded by the nature of a standard: for item 4B, fiberglass shingles, and for item 4D, organic shingles. In addition, item 4C only applies to Class-A shingles, so for those with other ratings, *NA* is an appropriate response.

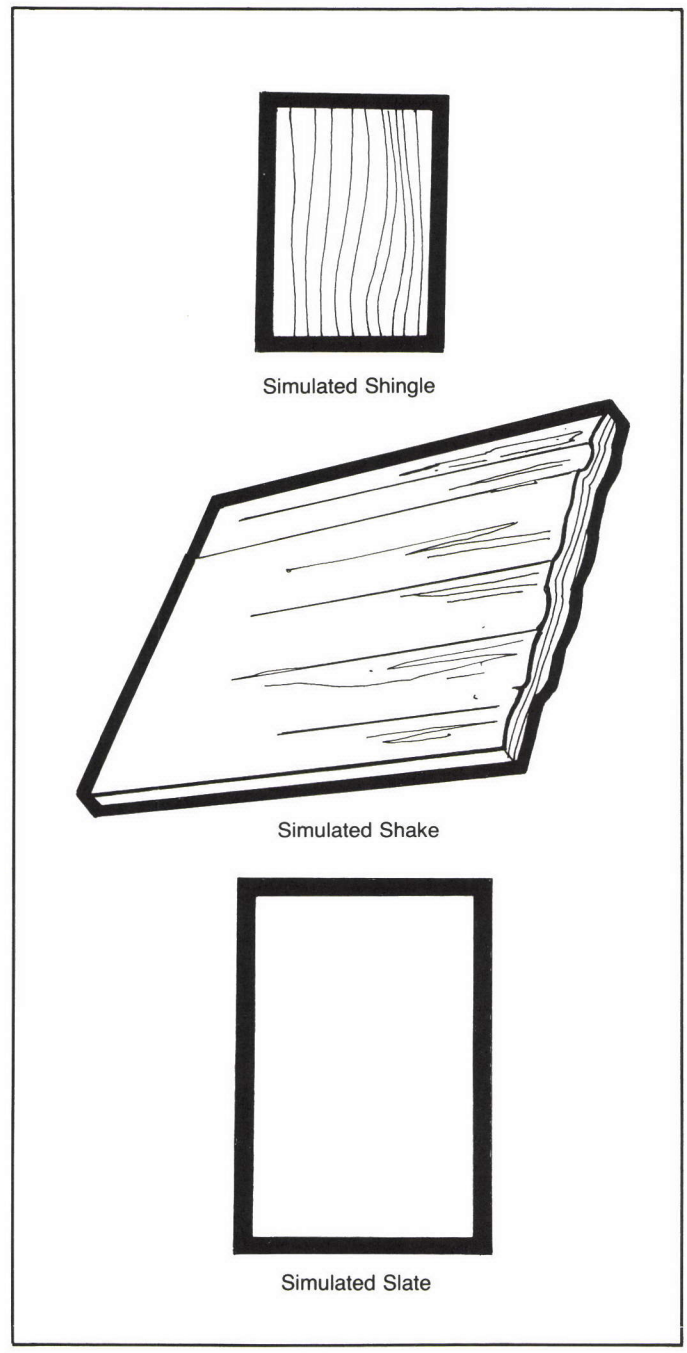


Figure 2 Types of Fiber-Cement Roof Components

Fiber-Cement Roof Components

General Information

The category of fiber-cement roof components encompasses those products made of cement and reinforcing fibers, either organic and/or inorganic,

that are designed as substitutes for wood shingles/shakes, slate, and tile in steep-slope applications. As such, they are made to look like, or to simulate, one of these products (see Fig. 2), and, in many instances, are installed in a similar manner. For example, simulated shake products often use the same system of interlayment as wood shakes.

Notes on the Fiber-Cement Roof Components Section

Item 3 *Style* This item allows for selection of the product that the fiber-cement component is intended to simulate; in some instances a product can look different depending on how it is viewed on the roof—for example, it might appear to be a shingle or a shake. Only one response for style was permitted for each product, however.

If more specific information was deemed appropriate, e.g., the type of tile that a product simulated, this information could be entered.

Item 8 *Hip/Ridge Pieces Available* Manufacturers indicate here whether accessory pieces are available for their product. An answer of *NO* does not necessarily imply that the accessory products are needed but not available; it may simply be that special pieces are not needed (and therefore not available).

Item 9 *Slope/Interlayment–Underlayment Recommendations* The term *interlayment* is generally associated with wood shake products and refers to the installation process involving laying an 18-in.-wide strip of felt over a portion of the shake, with the subsequent course being laid on top of the felt. An underlayment felt may be applied first, in addition to the interlayment.

However "normal" application is defined by a manufacturer, the minimum slope is provided followed by the recommended underlayment and/or interlayment. If application is allowed at less than the "normal" slope, the absolute minimum slope is provided followed by the underlayment and/or interlayment recommended for that "special" application. The absence of data for a "special" application generally implies that none is permitted.

Item 13 *Distribution* The only permitted responses to items 13A and 13B are *NO* (indicating that a product is not marketed by distributors or directly) or a number (of distributors or direct service locations). Responses of *YES* were not permitted, and, in cases where numbers were not provided, the response appears blank.

Item 15 *Accepted by the Following Codes* See the section in this introduction on building code approvals.

The only permitted responses to this item are the listing of a code-setting agency or a governmental jurisdiction. (Other approvals may be listed in the Appendix by manufacturers choosing to do so.) Numbers in parenthesis refer to reports on a product issued as part of or in addition to the approval process.

Clay Tile

General Information

Clay tile roofing is produced by baking molded clay into tile. The density of the clay is determined by the length of time and temperature at which it is heated. Tiles may be glazed and may also have surface texture treatment. As a result, there are a wide variety of tile profiles, styles, finishes, and colors available. In addition, each tile type may have separate field, ridge, hip, gable, and terminal tiles of various shapes. Installation methods depend upon the nature of the tile being installed, e.g., whether it is two-piece, one-piece, interlocking, flat, and so forth.

The terms used to refer to tile types are not necessarily consistent among manufacturers. Sometimes, a proprietary name is used instead of a generic term that might be more descriptive of the tile product. The terms used for item 3 of this section are intended to be generic and descriptive at the same time. Fig. 3 illustrates the types of tile referenced in this section: *"S" Spanish (Mission Barrel), one-piece*; *Straight Barrel (Mission), two-piece*; *Flat, one-piece*; *Flat, Interlocking, one-piece*; and *Flat Pan and Cover, two-piece*. The tile described as *Tapered Mission, two-piece* is simply a variant of the *Straight Barrel (Mission), two-piece*, except that it tapers down to a smaller size at one end.

Notes on the Clay Tile Section

Item 4 *Tile Description* The space for texture allows the recording of information concerning the surface treatment(s) in which a tile product is available. Such textures are often described in terms of what the tile product simulates, e.g., wood shake. The description of finishes and related data are split between the categories of natural and glazed. This data includes the number of colors available for each finish, whether the colors are marketed nationally or only regionally, and whether customized colors and/or shapes are available. In some instances, a number will not be entered for

colors available; instead, the word *CUSTOM* appears. This indicates that a product is available in custom colors only, by special order.

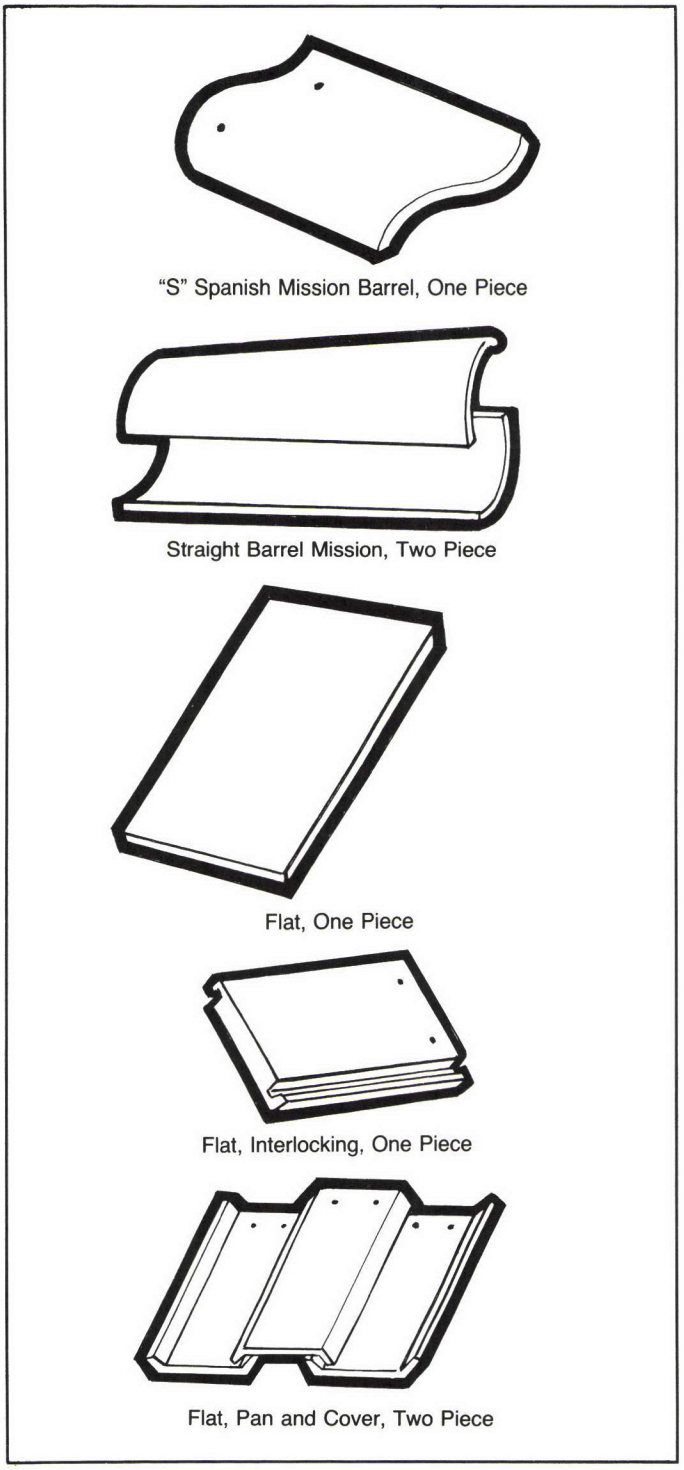


Figure 3 Types of Clay Tile

Item 6 *Dimensions and Coverage* For tapered tile, the dimensions will include three figures, the final one being the size to which the tile ultimately tapers; this will be preceded by *TAPERS TO* for clarity.

Item 7 *Slope/Underlayment Recommendations* However "normal" application is defined by a manufacturer, the minimum slope is provided followed by the recommended underlayment. If application is allowed at less than the "normal" slope, the absolute minimum slope is provided followed by the underlayment recommended for that "special" application. The absence of data for a "special" application generally implies that none is permitted.

Item 8 *Decks and Fastening Recommendations* In this section, the manufacturer records the type of fastening system recommended for each deck type. An *NA* indicates that installation on a particular deck is not recommended. If 8G *OTHER* is not filled in, no deck is recommended other than those so indicated by the manufacturer in the preceding list.

Item 11 *Distribution* The only permitted responses to items 11A and 11B are *NO* (indicating that a product is not marketed by distributors or directly) or a number (of distributors or direct service locations). Responses of *YES* were not permitted, and, in cases where numbers were not provided, the response appears blank.

Item 13 *Accepted by the Following Codes* See the section in this introduction on building code approvals.

The only permitted responses to this item are the listing of a code-setting agency or a governmental jurisdiction. (Other approvals may be listed in the Appendix by individual manufacturers.) Numbers in parenthesis refer to reports on a product issued as part of or in addition to the approval process.

Concrete Tile

General Information

Concrete tiles are made of portland cement, sand, and water in varying proportions. The material is mixed and extruded on molds under high pressure. The exposed surface of the tile is finished with cementitious material colored with synthetic oxide additives. The tiles are then cured to reach the required strength. They generally have lugs on the underside for anchoring to batten strips. There are

additionally waterlocks, or interlocking ribs on the longitudinal edge, that are for impeding movement and preventing water infiltration.

Like clay tile, there are a wide variety of profiles, styles, finishes, and colors available. Color may be added to the surface of the tile or dispersed throughout, termed "color-through" in item 4. Special texture may be added in surface treatment. In addition, each tile type may have separate field, ridge, hip, gable, and terminal tiles that are of various shapes.

Concrete tile types can be associated with the roof component that the tile is simulating—whether it be clay tile (*"S" (Spanish) Mission Barrel*, *Double "S"*) or shingles, shakes, and slate. See Fig. 4 for the types represented in item 3 of this section.

Notes on the Concrete Tile Section

Item 7 *Slope/Underlayment Recommendations* However "normal" application is defined by a manufacturer, the minimum slope is provided followed by the recommended underlayment. If application is allowed at less than the "normal" slope, the absolute minimum slope is provided followed by the underlayment recommended for that "special" application. The absence of data for a "special" application generally implies that none is permitted.

Item 8 *Recommended Decks and Fastening Requirements* The first option is whether solid sheathing and/or spaced sheathing is recommended and then the deck material type over which application is permitted. Item 8C1 gives information as to whether batten strips are required at a given slope or range of slopes; the entry of *NA* in either 8C1a or 8C1b is appropriate if either solid decking or spaced sheathing is <u>not</u> recommended in 8A. Then 8C2a and 8C2b provide for information concerning fastening requirements with and without battens, for field tiles only.

Item 11 *Distribution* The only permitted responses to items 11A and 11B are *NO* (indicating that a product is not marketed by distributors or directly) or a number (of distributors or direct service locations). Responses of *YES* were not permitted, and, in cases where numbers were not provided, the response appears blank.

Item 12 *Accepted by the Following Codes* See the section in this introduction on building code approvals.

The only permitted responses to this item are the listing of a code-setting agency or a governmental jurisdiction. (Other approvals may be listed in the Appendix by individual manufacturers.) Numbers in parenthesis refer to reports on a product issued as

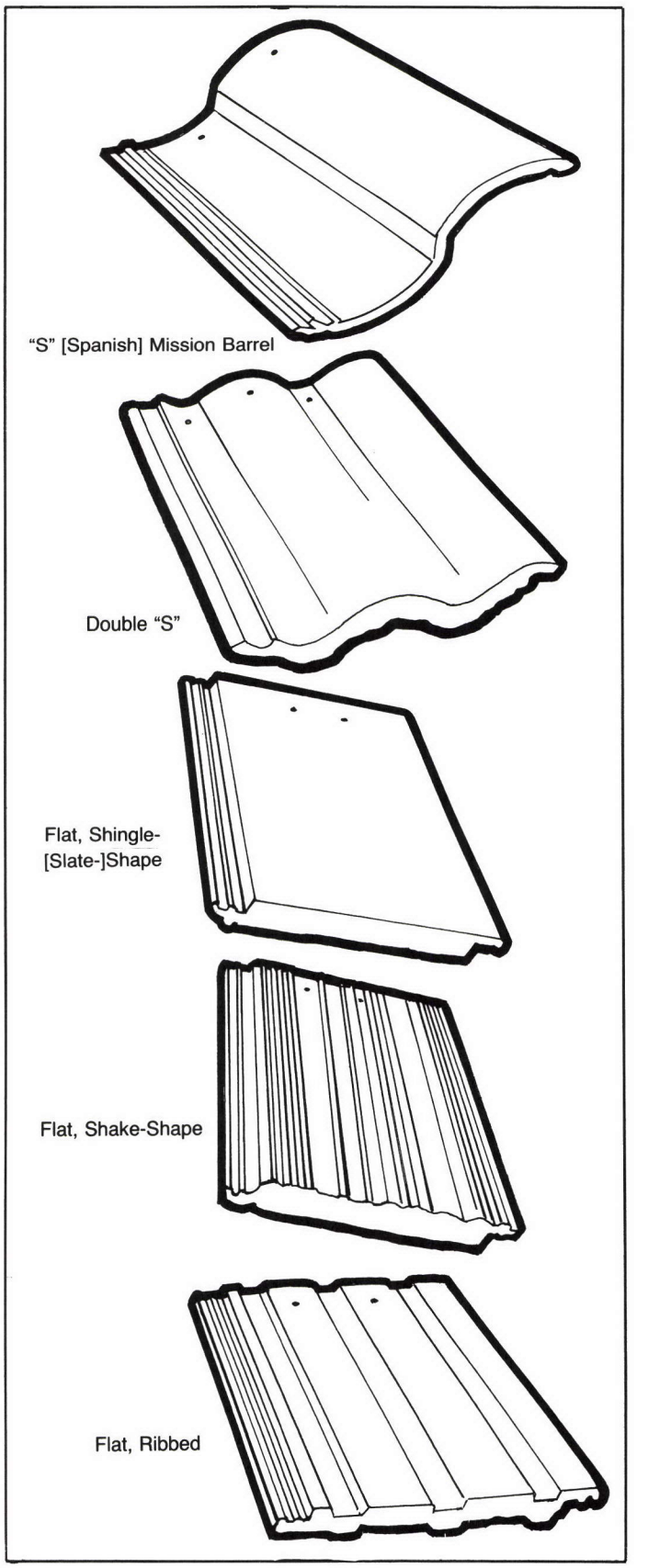


Figure 4 Types of Concrete Tile

part of or in addition to the approval process.

Metal Roof Components

General Information

Metal roofing systems are traditionally divided into two categories, architectural and structural. The architectural system is likened to the traditional steep shingled roof, in that it is considered a water shedder. Structural systems can be compared to and compete with traditional low-slope roofs because they are designed to better resist moisture on low-slope applications. Architectural panels are usually seamed by a double-interlock method, which performs well on a slope of at least 3 in 12 inches. They require solid decking, and a felt underlayment is usually recommended. Structural metal systems are designed to resist the passage of water under hydrostatic pressure. They have the structural capability of spanning joists without being supported by a solid deck and do not require an underlayment.

This section is divided into two separate parts: panels (item 3.2A) and individual components (item 3.2B). Individual components are those metal roofing products designed, in the main, to resemble a traditional steep-slope residential product; these are listed in the styles under item 3.1. There are, however, metal roof panels that are designed to resemble steep-slope residential products that cannot be considered "individual components" because of their size and configuration. And finally there are the standing seam panels that are intended primarily for architectural purposes but that can, in some cases, be used for structural systems. All of these metal roofing products have been incorporated into this section, but not necessarily as neatly as might be desired. The problem remains that, as discussed earlier in the general introduction, that which is residential may not be steep-slope, and that which is low-slope may not be commercial. For example, some metal panels not appearing here have a wide residential use but are structural, rather than architectural, by design. Ultimately, however, it was necessary to adopt some useable criterion according to which metal roof products were judged appropriate for inclusion in the *Residential Steep-Slope Guide*; that criterion is that they have residential use **and** be architectural by design. A number of metal panels with residential applications but with other than an essential architectural design can be found in the NRCA *Commercial Low-Slope Roofing Materials Guide*.

There are many categories of metal panels. The term *standing seam* is often used as a generic description for a class of metal roof seams, including some that are described below. More properly, the term refers to one of two kinds of *profiles*, or seam types: (1) the vertical leg/flat pan and (2) the trapezoidal seam. The name *standing seam* derives from the fact that the seams are joined together **above** the panel flats. The trapezoidal standing seam is more commonly associated with structural panels. Other panel types are batten, flat, bermuda, and shingled.

The original *batten seam* consisted of vertical leg panels placed between wood batten strips and covered with a cap. Today, many batten seam panels are constructed entirely of metal. Because they are designed to shed water, they are used primarily in architectural applications. The *flat seam* is created with individual panels applied in shingled application. One panel edge is folded back on top of itself; the other panel is folded under, and the two panels are hooked together. Again, because flat panels are considered water shedders, they are more commonly found in architectural installations. The *bermuda panel* profile features a continuous panel run perpendicular to the roof slope. It has a shingled appearance and is a water shedder. *Shingled panels* are die-formed panels designed to give the appearance of tile, slate, or wood shingles.

Notes on the Metal Roof Components Section

Item 3 *Configuration* The category of configuration encompasses style (3.1); component type and size (3.2); and materials, thicknesses, and finishes (3.3). The style can refer to the simulation of one of the traditional steep-slope products, and the response may include a more specific type, if appropriate; or it can be *OTHER*, with an entry made for the kind. (Standing seam panels are the most common kind of *OTHER* specified.) If a product is a panel, the width(s) in which the panel is available are entered for 3.2A, times the length of the panel; if the product is an individual component, the dimensions appear in 3.2B.

Item 4 *Systems Recommendations* This section is appropriate for both panels and individual components. The absence of a check mark by a deck type implies that application over the deck is not recommended by the manufacturer.

Item 5 *Panel Configuration* This item is only for panels that are recorded as such in item 3.2A; no data for individual components was permitted in this section.

Item 6 ***Individual Component Configuration*** This item is only for individual components that are recorded as such in item 3.2B; no data for panels was permitted in this section.

Items 8, 9 ***ASTM E331 and E283*** Actual test results are to be recorded; the only other response permitted was *NONE*.

Item 10 ***UL Fire Rating for Any Specification*** The response for this item should be Class A, B, or C. No other response, except *NONE*, was permitted. It should be noted that the rating is for a specification (combination of roof system components); contact the manufacturer concerning the exact specification to which the rating applies.

Item 11 ***FM/UL Wind Uplift Rating for Any Specification*** The response for this item should be a wind rating in the form of UL-90, FM I-90, and the like. It should be noted that the rating is for a specification (combination of roof system components); contact the manufacturer concerning the exact specification to which the rating applies.

Slate

General Information

Roofing slate is a dense, durable rock material that is basically nonabsorbent. Two properties of slate are cleavage and fracture. It has natural cleavage, which permits it to be easily split in one direction. Fracture, usually occurring at right angles to the cleavage, is called the grain. Roofing slates are commonly split so that the length of the slate runs in the direction of the grain. The surface texture of slate after being split for commercial use derives from the characteristics of the rock from which it was quarried. Some slate splits to a smooth, practically even surface, while others yield a surface that is rough and uneven.

The color of slate is determined by its chemical and mineral composition. Because these factors differ in various regions, roofing slates can be obtained in a variety of colors. In addition, exposure to weather causes slate to change in color. The degree of change varies depending on the slate. Those slates exhibiting minimal color change are known as "permanent" or "unfading." Slate that shows a more marked color change is known as "weathering" slate. In between unfading and weathering is "semi-weathering."

There are several classifications for slate roofs. The first is standard slate, which refers to slate that is generally from 3/16-in to 1/4-in. thick with uniform length. The category *Standard Smooth* used in item 3 refers to standard slate that has a relatively smooth surface, in comparison with standard rough (or just "rough"). These slates have a rougher texture and are generally available in thicker pieces. Finally, there are graduated/textural slates; these are designed with varying lengths and thicknesses and are generally rougher than standard slates.

Notes on the Slate Section

Item 5 ***Colors Available*** Manufacturers may select among the list of colors 5A through 5N and may enter an *X* or the words *weathering, semi-weathering, or unfading*. The absence of an entry for a given color means that the color is not available in any form.

Item 6 ***Slope/Underlayment Recommendations*** However "normal" application is defined by a manufacturer, the minimum slope is provided followed by the recommended underlayment. If application is allowed at less than the "normal" slope, the absolute minimum slope is provided followed by the underlayment recommended for that "special" application. The absence of data for a "special" application generally implies that none is permitted.

Item 7 ***Recommended Decks*** The first option is whether solid sheathing and/or spaced sheathing is recommended (7A) and then the deck material type over which application is permitted (7B). The absence of an entry of an *X* implies that a deck type is not recommended. If 7B4 *OTHER* is not filled in, no deck is recommended other than those so indicated by the manufacturer in the preceding list.

Item 11 ***Distribution*** The only permitted responses to items 11A and 11B are *NO* (indicating that a product is not marketed by distributors or directly) or a number (of distributors or direct service locations). Responses of *YES* were not permitted, and, in cases where numbers were not provided, the response appears blank.

Synthetic Residential Steep-Slope Roof Components

General Information

The category of Synthetic Roof Components was created for this publication. It is not an industry term, but instead is a catch-all category for any steep-slope product made out of material other than felt/asphalt, metal, clay, concrete, slate, or fibercement. It is intended to encompass products made

from plastics and similar synthetics. In general, these products will simulate traditional steep-slope materials, which is the reason for the categories in item 3.1.

Notes on the Synthetic Residential Steep-Slope Roof Components Section

Item 5 *Material Composition* This is intended as an open-ended item that will allow manufacturers to describe the material from which their product is made in any way that they choose.

Item 7 *Slope/Underlayment Recommendations* However "normal" application is defined by a manufacturer, the minimum slope is provided followed by the recommended underlayment. If application is allowed at less than the "normal" slope, the absolute minimum slope is provided followed by the underlayment recommended for that "special" application. The absence of data for a "special" application generally implies that none is permitted.

Item 8 *Recommended Decks* The first option is whether solid sheathing and/or spaced sheathing is recommended (8A) and then the deck material type over which application is permitted (8B). The absence of an entry of an *X* implies that a deck type is not recommended. If 8B4 *OTHER* is not filled in, no deck is recommended other than those so indicated by the manufacturer in the preceding list.

Item 11 *Distribution* The only permitted responses to items 11A and 11B are *NO* (indicating that a product is not marketed by distributors or directly) or a number (of distributors or direct service locations). Responses of *YES* were not permitted, and, in cases where numbers were not provided, the response appears blank.

Item 12 *Technical Information* In this section, manufacturers may record fire and wind ratings and test results according to whatever standards befit their product(s); there are no restrictions to what may be entered for 12A or 12B.

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	ASPHALT SHINGLES	FIBER-CEMENT ROOF COMPONENTS	CLAY TILE	CONCRETE TILE	METAL ROOF COMPONENTS	SLATE	SYNTHETIC ROOF COMPONENTS
1. ALCOA BUILDING PRODUCTS 1501 Michigan St. Sidney, OH 45365 800/621–7466 FAX 513/498–6871					104		
2. ALLIED ROOF SYSTEMS P.O. Box 320347 Birmingham, AL 35232 205/591–1010 FAX 205/591–1931					105		
3. AMERICAN CEMWOOD CORPORATION P.O. Box C Albany, OR 97321 503/928–6397 FAX 503/928–8110		78					
4. ATAS ALUMINUM CORP. 6612 Snowdrift Rd. Allentown, PA 18106 215/395–8445 FAX 215/395–9342					105		
5. BERRIDGE MANUFACTURING CO. 1720 Maury St. Houston, TX 77026 713/223–4971 FAX 713/236–9422					107		
6. BIRD INCORPORATED 1077 Pleasant St. Norwood, MA 02062 800/BIRD–INC FAX 617/762–6586	26						
7. BORAL CONCRETE PRODUCTS U.S. TILE 800 North Haven Ave. Suite 240 Ontario, CA 91764 714/944–1700 FAX 714/944–1712			84				
8. BORAL INDUSTRIES 800 North Haven Ave. Suite 240 Ontario, CA 91764 714/944–1700 FAX 714/944–1712				94			
9. BPCO INC. 12 Furler St. Totowa, NJ 07512 201/890–1033 FAX 201/785–3391	27						
10. BRITSLATE NORTH AMERICA, INC. 75 Bickford Hill Rd. Gardner, MA 01440 508/852–4888 FAX 508/630–4515						124	
11. BUCKINGHAM-VIRGINIA SLATE CORPORATION P.O. Box 8 Arvonia, VA 23004 804/581–1131 FAX 804/581–1130						124	

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	ASPHALT SHINGLES	FIBER-CEMENT ROOF COMPONENTS	CLAY TILE	CONCRETE TILE	METAL ROOF COMPONENTS	SLATE	SYNTHETIC ROOF COMPONENTS
12. CAL-SHAKE, INC. 5355 N. Vincent Ave. P.O. Box 2265 Irwindale CA 91706 800/736–7663 FAX 800/969–7520		**78**					
13. THE CELOTEX CORPORATION P.O. BOX 31602 Tampa, FL 33631 813/873–4321 FAX 813/873–4080	**29**						
14. CERTAINTEED CORPORATION/ ROOFING PRODUCTS GROUP P.O. Box 1100 1400 Union Meeting Rd. Blue Bell, PA 19422 800/322–3060 FAX 215/341–6212	**33**						
15. CLASSIC PRODUCTS, INC. P.O. Box 701 Piqua, OH 45356 800/543–8938 FAX 513/773–9261					**110**		
16. CUSTOM ROOFING COMPANY P.O. Box 740 Naples, TX 75568 903/897–5672 FAX 903/897–2024	**36**						
17. DELEO CLAY TILE CO. INC. 600 Chaney St. Lake Elsinore, CA 92570 800/237–9461 (CA) 800/654–1119 FAX 714/245–2427			**85**				
18. ECHEGUREN SLATE, INC. 1465 Illinois St. San Francisco, CA 94107 415/206–9343 FAX 415/206–9353						**125**	
19. ETERNIT, INC. Excelsior Industrial Park P.O. Box 679 Blandon, PA 19510 215/926–0100 FAX 215/926–7080		**79**					
20. EVERGREEN SLATE COMPANY, INC. 68 E. Potter Ave. P.O. Box 248 Granville, NY 12832 518/642–2530 FAX 518/642–9313						**125**	
21. FIBRECEM CORPORATION P.O. Box 411368 Charlotte, NC 28241 800/346–6147 FAX 704/588–2096		**79**					
22. GAF BUILDING MATERIALS CORP. 1361 Alps Road Wayne, NJ 07470 201/628–3000	**37**						

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	ASPHALT SHINGLES	FIBER-CEMENT ROOF COMPONENTS	CLAY TILE	CONCRETE TILE	METAL ROOF COMPONENTS	SLATE	SYNTHETIC ROOF COMPONENTS
23. GERARD ROOFING TECHNOLOGIES 955 Columbia Street Brea, CA 92621 714/529–0407 FAX 714/529–6643					110		
24. GLADDING, MCBEAN P.O. BOX 97 Lincoln, CA 95648 916/645–3341 FAX 916/645–1723			85				
25. GS ROOFING PRODUCTS CO. INC. 5525 MacArthur Blvd. Suite 900 Irving, TX 75038 214/580–5600	39						
26. HILLTOP SLATE INC. P.O. Box 201 Middle Granville, NY 12849 518–642–2270 FAX 518/642–1220						125	
27. IKO MANUFACTURING INC 120 Hay Rd. Wilmington DE 19809 302/764–3100 FAX 302/764–5852	41						
28. JAMES HARDIE BUILDING PRODUCTS, INC. 10901 Elm Avenue Fontana, CA 92335 714/356–6300 FAX 714/355–0690		80					
29. KLOBER PLASTICS 17891 Sky Park Circle Suite G Irvine, CA 92714 714/252–0102 FAX 714/252–0104							128
30. LUDOWICI-CELADON, INC. P.O. BOX 96 New Lexington, OH 43764 800/945–8453			87				
31. HERBERT MALARKEY ROOFING COMPANY 3131 N. Columbia Blvd. Portland OR 92717 800/545–1191 FAX 503/289–7644	45						
32. MANVILLE ROOFING SYSTEMS, A DIVISION OF SCHULLER INT'L INC. P.O. Box 5108 Denver, CO 80217 303/978–2000	46						
33. MAXITILE, INC. 17141 S. Kingsview Ave. Carson CA 90746 310/217–0316 FAX 310/515–6851		80					

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	ASPHALT SHINGLES	FIBER-CEMENT ROOF COMPONENTS	CLAY TILE	CONCRETE TILE	METAL ROOF COMPONENTS	SLATE	SYNTHETIC ROOF COMPONENTS
34. MBCI P.O. Box 38217 Houston, TX 77238 713/445–8555 FAX 713/445–1791					111		
35. M.C.A. CLAY ROOF TILE 1985 Sampson Ave. Corona, CA 91719 714/736–9590 FAX 714/736–6052			92				
36. MCELROY METAL CO. 1500 Hamilton Road Bossier City, LA 71111 318/747–8000 FAX 318/747–8029					114		
37. MET-TILE INC. P.O. Box 4268 Ontario, CA 91761 714/947–0311 FAX 714/947–1510					114		
38. MONIER ROOF TILE INC. 750 The City Drive Suite 200 Orange, CA 92613 714/750–5366 FAX 714/750–0751				97			
39. W.F. NORMAN P.O. Box 323 214 N. Cedar St. Nevada, MO 64772 800/641–4038 FAX 417/667–2708					115		
40. OWENS-CORNING FIBERGLAS CORP. Fiberglas Tower Toledo, OH 43659 419/248–8000 FAX 419/248–7999	48						
41. PABCO ROOFING MANUFACTURERS 1014 Chelsey Ave. Richmond, CA 94801 800/776–3563 FAX 415–232–1328	51						
42. PENN BIG BED SLATE CO., INC. P.O. Box 184 Slatington, PA 18080 215/767–4601 FAX 215/757–9252						126	
43. PETERSEN ALUMINUM CORP. 955 Estes Ave. Elk Grove Village, IL 60007 800/323–1960 FAX 800/722–7150					115		
44. REINKE SHAKES 3301 Willow Wood Lincoln, NB 68506 402/488–7181					119		
45. RISING & NELSON SLATE CO., INC. P.O. Box 98 (Main St.) West Pawlet, VT 05775 802/645–0150 800/348–8820						126	

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	ASPHALT SHINGLES	FIBER-CEMENT ROOF COMPONENTS	CLAY TILE	CONCRETE TILE	METAL ROOF COMPONENTS	SLATE	SYNTHETIC ROOF COMPONENTS
46. SUPRADUR MANUFACTURING CORPORATION P.O. Box 908 Rye, NY 10580 914/967–8230 800/223–1948 FAX 914/967–8344		80	93				
47. TAMKO ASPHALT PRODUCTS INC. P.O. Box 1404 220 W. 4th St. Joplin, MO 64801 417/624–6644 FAX 417/624–8935	53						
48. TEGOLA CANADESE 3807 Inwood Landing Orlando, FL 32812 407/855–0300 FAX 407–855–0322	56						
49. ULTRA SEAM ASSOCIATION P.O. Box 710 Morganfield, KY 42437 313/960–0970 FAX 313/960–0460					119		
50. VERMONT STRUCTURAL SLATE COMPANY, INC. P.O. Box 98 3 Prospect St. Fair Haven VT 05743 800/343–1900 FAX 802/265–3865						127	
51. VINCENT METALS P.O. Box 360 Minneapolis, MN 55440 612/378–1131 FAX 612/378–6112					121		
52. WEATHERFORD, INC. 1518 Meadors Farm Rd. Florence, SC 29505 803/669–6690 FAX 803/662–0033					121		
53. WESTILE 8311 West Carder Court Littleton, CO 80125 303/791–1700 FAX 303/791–9906				101			

Asphalt Shingles

Part 1

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	BIRD INC.	BIRD INC.	BIRD INC.
2. PRODUCT NAME	LIMITED EDITION	ARCHITECT 90	WOODSCAPE
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	LAMINATED	LAMINATED	LAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	7	8	7
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP			
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP	X	X	X
D. SELF-SEALING NO CUTOUT			
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	YES
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	12 X 36	12 X 36	12 X 36
2. EXPOSURE (inches)	5	5	5
3. HEADLAP (inches)	2	2	2
4. SHINGLES PER ROOF SQUARE	80	80	80
5. BUNDLES PER SQUARE	5	4	3
6. WEIGHT PER ROOF SQUARE (pounds)	370	310	240
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			
2. EXPOSURE (inches)			
3. HEADLAP (inches)			
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE			
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	REGIONALLY
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	15-LB. FELT	15-LB. FELT	15-LB. FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	2:12	2:12	2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	30-LB. FELT OR ICE & WATER BARRIER	30-LB. FELT OR ICE & WATER BARRIER	30-LB. FELT OR ICE & WATER BARRIER
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD			
C. WAFERBOARD			
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD	1989	1987	1988
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)			
B. DIRECT (number of regional service locations or no)			
13A. FOR SALES INFORMATION, CONTACT:	T.J. HARTNETT, VICE PRESIDENT	T.J. HARTNETT, VICE PRESIDENT	T.J. HARTNETT, VICE PRESIDENT
13B. FOR TECHNICAL INFORMATION, CONTACT:	C. PATENAUDE	C. PATENAUDE	C. PATENAUDE
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1

BIRD INC.	BIRD INC.	BIRD INC.	BIRD INC.	BIRD INC.	BPCO INC.
MARK 80	FIRELINE	SEAL KING	JET	WIND SEAL 80	ESGARD SIGNATURE
FIBERGLASS NONLAMINATED CERAMIC 7 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 8 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 12 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 6 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 11 REGIONAL	FIBERGLASS LAMINATED CERAMIC 5 REGIONAL
	X	X		X	
X			X		X
YES	YES	YES	YES	YES	YES
12 X 36 5 2 80 4 280	12 X 36 5 2 80 4 280	12 X 36 5 2 80 3 240	12 X 36 5 2 80 3 240	12 X 36 5 2 80 3 218	12 X 36 5 2 80 4 340
					REGIONALLY
4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT
2:12 30-LB. FELT OR ICE & WATER BARRIER	2:12 30-LB. FELT OR ICE & WATER BARRIER	2:12 30-LB. FELT OR ICE & WATER BARRIER	2:12 30-LB. FELT OR ICE & WATER BARRIER	2:12 30-LB. FELT OR ICE & WATER BARRIER	
X	X	X	X	X	X X
1981	1981	1981	1981	1981	1989
T.J. HARTNETT, VICE PRESIDENT C. PATENAUDE	T.J. HARTNETT, VICE PRESIDENT C. PATENAUDE	T.J. HARTNETT, VICE PRESIDENT C. PATENAUDE	T.J. HARTNETT, VICE PRESIDENT C. PATENAUDE	T.J. HARTNETT, VICE PRESIDENT C. PATENAUDE	P. BACCHIONI 201/890-1033 SALES

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	BPCO INC.	BPCO INC.	BPCO INC.
2. PRODUCT NAME	ELEGANCE	ROOFMASTER PLUS	ROOFMASTER
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	ORGANIC	ORGANIC	ORGANIC
B. CONSTRUCTION (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	5	6	4
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP	X		
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP			
D. SELF-SEALING NO CUTOUT		X	X
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	YES
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	13 1/4 X 39 3/8	13 1/2 X 39 3/8	13 1/2 X 39 3/8
2. EXPOSURE (inches)	5 5/8	5 5/8	5 5/8
3. HEADLAP (inches)	2	2	2
4. SHINGLES PER ROOF SQUARE	65	65	65
5. BUNDLES PER SQUARE	4	3	3
6. WEIGHT PER ROOF SQUARE (pounds)	285	250	235
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			
2. EXPOSURE (inches)			
3. HEADLAP (inches)			
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE			
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	NO	NO	NO
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	15-LB. FELT	15-LB. FELT	15-LB. FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)			
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION			
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD	X	X	X
C. WAFERBOARD			
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD	1991	1990	1979
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)			
B. DIRECT (number of regional service locations or no)			
13A. FOR SALES INFORMATION, CONTACT:	P. BACCHIONI 201/890-1033 SALES	P. BACCHIONI 201/890-1033 SALES	P. BACCHIONI 201/890-1033 SALES
13B. FOR TECHNICAL INFORMATION, CONTACT:			
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1

BPCO INC.	BPCO INC.	BPCO INC.	BPCO INC.	CELOTEX CORPORATION	CELOTEX CORPORATION
ESGARD TRADITION	ESGARD 20	ESGARD NCO	TITE-LOK	SOL SEAL/20	STANDARD STRIP/20
ORGANIC	ORGANIC	ORGANIC	ORGANIC	ORGANIC	FIBERGLASS
NONLAMINATED	NONLAMINATED	NONLAMINATED	NONLAMINATED	NONLAMINATED	NONLAMINATED
CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC
9	12	6	5	9	29
REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL	NATIONAL
X	X			X	X
		X			
			X		
YES	YES	YES	YES	YES	NO
13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 39 3/8	21 3/4 X 23 13/16	12 X 36	12 X 36
5 5/8	5 5/8	5 5/8	15 7/8	5	5
2	2	2	2	2	2
65	65	65	84	80	80
3	3	3	3	3	3
250	222	220	225		
				12 1/4 X 36	12 1/4 X 36
				5 1/8	5 1/8
				2	2
				78	78
				3	3
NO	NO	NO	NO	NO	REGIONALLY
4:12	4:12	4:12	4:12	4:12	4:12
15-LB. FELT	15-LB. FELT	15-LB. FELT	15-LB. FELT	15-LB. FELT	15-LB. FELT
2:12	2:12	2:12		2:12	2:12
2 15-LB. FELTS OR	2 15-LB. FELTS OR	2 15-LB. FELTS OR		2 15-LB. FELTS OR	2 15-LB. FELTS OR
PROGARD	PROGARD	PROGARD		ICE & WATER BARR.	ICE & WATER BARR.
X	X	X	X	X	X
X	X	X	X		
1989	1983	1986	1981		
P. BACCHIONI	P. BACCHIONI	P. BACCHIONI	P. BACCHIONI	800/CELOTEX OR	800/CELOTEX OR
201/890 – 1033	201/890 – 1033	201/890 – 1033	201/890 – 1033	REGIONAL OFFICE	REGIONAL OFFICE
SALES	SALES	SALES	SALES	800/662 – 4609	800/662 – 4609
				X	

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION
2. PRODUCT NAME	FRS STANDARD STRIP/20	STANDARD STRIP/20 METRIC	STORM KING/25
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	6	12	15
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	NATIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP	X	X	X
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP			
D. SELF-SEALING NO CUTOUT			
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	NO
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	12 X 36	13.1 X 39.4	12 X 36
2. EXPOSURE (inches)	5	5 5/8	5
3. HEADLAP (inches)	2	2	2
4. SHINGLES PER ROOF SQUARE	80	66	80
5. BUNDLES PER SQUARE	3	3	3
6. WEIGHT PER ROOF SQUARE (pounds)			
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			12 1/4 X 36
2. EXPOSURE (inches)			5 1/8
3. HEADLAP (inches)			2
4. SHINGLES PER ROOF SQUARE			78
5. BUNDLES PER SQUARE			3
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	NO	REGIONALLY	NO
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	15-LB. FELT	15-LB. FELT	15-LB. FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	2:12	2:12	2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 15-LB. FELTS OR ICE & WATER BARR.	2 15-LB. FELTS OR ICE & WATER BARR.	2 15-LB. FELTS OR ICE & WATER BARR.
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD			
C. WAFERBOARD			
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD			
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)			
B. DIRECT (number of regional service locations or no)			
13A. FOR SALES INFORMATION, CONTACT:	800/CELOTEX OR REGIONAL OFFICE	800/CELOTEX OR REGIONAL OFFICE	800/CELOTEX OR REGIONAL OFFICE
13B. FOR TECHNICAL INFORMATION, CONTACT:	800/662-4609	800/662-4609	800/662-4609
14. SEE APPENDIX IF CHECKED	X		

NA=not applicable

Asphalt Shingles Part 1

CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION
FRS STORM KING/25	STORM KING/25 METRIC	DIMENSIONAL III/30	FRS DIMENSIONAL III/30	DIMENSIONAL IV/25	FRS DIMENSIONAL IV/25
FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS
NONLAMINATED	NONLAMINATED	LAMINATED	LAMINATED	LAMINATED	LAMINATED
CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC
6	7	12	4	13	6
REGIONAL	REGIONAL	NATIONAL	REGIONAL	NATIONAL	REGIONAL
X	X				
		X	X	X	X
YES	YES	NO	YES	NO	YES
12 X 36	13.1 X 39.4	13 1/4 X 40	13 1/4 X 40	13 1/4 X 40	13 1/4 X 40
5	5 5/8	5 5/8	5 5/8	5 5/8	5 5/8
2	2	7 5/8	7 5/8	7 5/8	7 5/8
80	66	64	64	64	64
3	3	4	4	4	4
		12 X 36		12 X 36	
		5		5	
		7		7	
		80		80	
		4		4	
NO	REGIONALLY	NATIONALLY	REGIONALLY	NATIONALLY	REGIONALLY
4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT
2:12 2 15-LB. FELTS OR ICE & WATER BARR.	2:12 2 15-LB. FELTS OR ICE & WATER BARR.	2:12 2 15-LB. FELTS OR ICE & WATER BARR.	2:12 2 15-LB. FELTS OR ICE & WATER BARR.	2:12 2 15-LB. FELTS OR ICE & WATER BARR.	2:12 2 15-LB. FELTS OR ICE & WATER BARR.
X	X	X	X	X	X
800/CELOTEX OR REGIONAL OFFICE 800/662-4609	800/CELOTEX OR REGIONAL OFFICE 800/662-4609	800/CELOTEX OR REGIONAL OFFICE 800/662-4609	800/CELOTEX OR REGIONAL OFFICE 800/662-4609	800/CELOTEX OR REGIONAL OFFICE 800/662-4609	800/CELOTEX OR REGIONAL OFFICE 800/662-4609
X			X		X

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION
2. PRODUCT NAME	PRESIDENTIAL SHAKE SHINGLE	FRS PRESIDENTIAL SHAKE SHINGLE	DIMENSIONAL 365/40 SHAKE SHINGLE
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	LAMINATED	LAMINATED	LAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	7	6	7
E. COLOR AVAILABLILITY (regional/national)	NATIONAL	REGIONAL	NATIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP			
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP	X	X	X
D. SELF-SEALING NO CUTOUT			
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	YES	NO
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	14 1/4 X 40	14 1/4 X 40	13 1/4 X 40
2. EXPOSURE (inches)	8 1/4	8 1/2	5 5/8
3. HEADLAP (inches)	6	6	7 5/8
4. SHINGLES PER ROOF SQUARE	90	90	64
5. BUNDLES PER SQUARE	5	5	5
6. WEIGHT PER ROOF SQUARE (pounds)			
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			
2. EXPOSURE (inches)			
3. HEADLAP (inches)			
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE			
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	NATIONALLY	REGIONALLY	NATIONALLY
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	15-LB. FELT	15-LB. FELT	15-LB. FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)			2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION			2 15-LB. FELTS OR ICE & WATER BARR.
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD			
C. WAFERBOARD			
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD			
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)			
B. DIRECT (number of regional service locations or no)			
13A. FOR SALES INFORMATION, CONTACT:	800/CELOTEX OR REGIONAL OFFICE	800/CELOTEX OR REGIONAL OFFICE	800/CELOTEX OR REGIONAL OFFICE
13B. FOR TECHNICAL INFORMATION, CONTACT:	800/662-4609	800/662-4609	800/662-4609
14. SEE APPENDIX IF CHECKED	X	X	

NA=not applicable

Asphalt Shingles Part 1

CELOTEX CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION
FRS DIMENSIONAL 365/40 SHAKE SHINGLE	GRAND MANOR SHANGLE	HALLMARK SHANGLE	HALLMARK SHANGLE	INDEPENDENCE SHANGLE	INDEPENDENCE SHANGLE
FIBERGLASS LAMINATED CERAMIC 7 REGIONAL	FIBERGLASS LAMINATED CERAMIC 7 NATIONAL	FIBERGLASS LAMINATED CERAMIC 8 REGIONAL	ORGANIC LAMINATED CERAMIC 8 REGIONAL	FIBERGLASS LAMINATED CERAMIC 10 REGIONAL	ORGANIC LAMINATED CERAMIC 10 REGIONAL
X	X	X	X	X	X
YES	NO	YES	YES	YES	YES
13 1/4 X 40	18 X 36	12 X 36	12 X 36	12 X 36	12 X 36
5 5/8	8	5	5	5	5
7 5/8	2	2	2	2	2
64	50	80	80	80	80
5	5	4	5	4	4
	430	305	325	300	300
REGIONALLY	NATIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY
4:12 15-LB. FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT
2:12 2 15-LB. FELTS OR ICE & WATER BARR.	2:12 2 NO.-15 FELTS OR WINTERGUARD	2:12 2 NO.-15 FELTS OR WINTERGUARD	2:12 2 NO.-15 FELTS OR WINTERGUARD	2:12 2 NO.-15 FELTS OR WINTERGUARD	2:12 2 NO.-15 FELTS OR WINTERGUARD
X	X	X	X	X	X
	X	X	X	X	X
	X	X	X	X	X
	1991	1965	1965	1976	1976
	NO	NO	NO	NO	NO
800/CELOTEX OR REGIONAL OFFICE 800/662 – 4609	LOCAL OFFICE (SEE APPENDIX) 800/322 – 3060 (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX) 800/322 – 3060 (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX) 800/322 – 3060 (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX) 800/322 – 3060 (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX) 800/322 – 3060 (SEE APPENDIX)
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION
2. PRODUCT NAME	HORIZON SHANGLE	HORIZON SHANGLE	HEARTHSTEAD
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	FIBERGLASS	ORGANIC	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	OVERLAY	OVERLAY	NONLAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	9	9	6
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP	X	X	
B. SELF-SEALING 4-TAB STRIP			X
C. SELF-SEALING RANDOM-TAB STRIP			
D. SELF-SEALING NO CUTOUT			
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	YES
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	12 X 36	12 X 36	12 X 36
2. EXPOSURE (inches)	5	5	5
3. HEADLAP (inches)	2	2	2
4. SHINGLES PER ROOF SQUARE	80	80	80
5. BUNDLES PER SQUARE	3	3	3
6. WEIGHT PER ROOF SQUARE (pounds)	250/240	250	225/215
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			
2. EXPOSURE (inches)			
3. HEADLAP (inches)			
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE			
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	REGIONALLY
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	NO.-15 FELT	NO.-15 FELT	NO.-15 FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	2:12	2:12	2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 NO.-15 FELTS OR WINTERGUARD	2 NO.-15 FELTS OR WINTERGUARD	2 NO.-15 FELTS OR WINTERGUARD
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD	X	X	X
C. WAFERBOARD	X	X	X
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD	1982	1982	1985
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)			
B. DIRECT (number of regional service locations or no)	NO	NO	NO
13A. FOR SALES INFORMATION, CONTACT:	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)
13B. FOR TECHNICAL INFORMATION, CONTACT:	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)
14. SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1

CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION
HEARTHSTEAD	CUSTOM SEALDON	CERTAINTEED XT25	FUNGUSBUSTER 25	SEALDON 20	CERTAINTEED 20
ORGANIC	ORGANIC	FIBERGLASS	FIBERGLASS	ORGANIC	FIBERGLASS
NONLAMINATED	NONLAMINATED	NONLAMINATED	NONLAMINATED	NONLAMINATED	NONLAMINATED
CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC
6	9/10	9/10/12	7	11/14	11
REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL
	X	X	X	X	X
X					
YES	YES	YES	YES	YES	YES
12 X 36	12 X 36	12 X 36	12 X 36	12 X 36	12 X 36
5	5	5	5	5	5
2	2	2	2	2	2
80	80	80	80	80	80
3	3	3	3	3	3
225	250	235	235	220	200
REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY
4:12 NO.-15 FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT
2:12 2 NO.-15 FELTS OR WINTERGUARD	2:12 2 NO.-15 FELTS OR WINTERGUARD	2:12 2 NO.-15 FELTS OR WINTERGUARD	2:12 2 NO.-15 FELTS OR WINTERGUARD	2:12 2 NO.-15 FELTS OR WINTERGUARD	2:12 2 NO.-15 FELTS OR WINTERGUARD
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
1985	1991	1985	1984	1950s	1970s
NO	NO	NO	NO	NO	NO
LOCAL OFFICE (SEE APPENDIX) 800/322-3060 (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX) 800/322-3060 (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX) 800/322-3060 (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX) 800/322-3060 (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX) 800/322-3060 (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX) 800/322-3060 (SEE APPENDIX)
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CUSTOM ROOFING COMPANY
2. PRODUCT NAME	SOLID SLAB	CUSTOM LOK 25	SEAL-TOP
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	ORGANIC	ORGANIC	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	8	9	14
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP			X
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP			
D. SELF-SEALING NO CUTOUT	X		
E. INDIVIDUAL INTERLOCKING		X	
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	NO
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	12 X 36	20 13/16 X 21 1/2	12 1/4 X 36
2. EXPOSURE (inches)	5	14	5 1/2
3. HEADLAP (inches)	2	2	7
4. SHINGLES PER ROOF SQUARE	80	99	76
5. BUNDLES PER SQUARE	3	3	3
6. WEIGHT PER ROOF SQUARE (pounds)	225	250	210
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			
2. EXPOSURE (inches)			
3. HEADLAP (inches)			
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE			
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	NO
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	NO.-15 FELT	NO.-15 FELT	NO.-15 FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	2:12		2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 NO.-15 FELTS OR WINTERGUARD		2 15-LB. FELTS
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD	X	X	
C. WAFERBOARD	X	X	
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD	1980s	1960s	1985
11. NUMBER OF SQUARES INSTALLED			>1 MILLION
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)			300+
B. DIRECT (number of regional service locations or no)	NO	NO	20
13A. FOR SALES INFORMATION, CONTACT:	LOCAL OFFICE (SEE APPENDIX)	LOCAL OFFICE (SEE APPENDIX)	B. SARTAIN
13B. FOR TECHNICAL INFORMATION, CONTACT:	800/322-3060 (SEE APPENDIX)	800/322-3060 (SEE APPENDIX)	B. SARTAIN
14. SEE APPENDIX IF CHECKED	X	X	

NA=not applicable

Asphalt Shingles Part 1

CUSTOM ROOFING COMPANY	CUSTOM ROOFING COMPANY	CUSTOM ROOFING COMPANY	CUSTOM ROOFING COMPANY	CUSTOM ROOFING COMPANY	GAF BUILDING MATERIALS CORPORATION
DYNASTY	VANGUARD	VANGUARD III	DIAMOND CREST III	T-LOCK	TIMBERLINE ULTRA
FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS
NONLAMINATED	NONLAMINATED	NONLAMINATED	NONLAMINATED	NONLAMINATED	LAMINATED
CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC COATED
14	6	6	11	7	10
REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL
X					
	X	X			
					X
				X	
NO	NO	NO	NO	NO	NO
12 1/4 X 36	11 X 36	11 X 36	12 X 36	21 1/2 X 20 13/16	12 X 36
5 1/2	11	11	12	14 1/2	5
7	0			7	2
76	100	100	80	99	80
3	3	4	3	3	4
240	240	300	210	240	
					13 1/4 X 39 3/8
					5 5/8
					2
					64
					4
NO	NO	NO	NO	NO	NATIONALLY
4:12	4:12	4:12	4:12	4:12	5:12
NO.-15 FELT	NO.-15 FELT	NO.-15 FELT	NO.-15 FELT	NO.-15 FELT	15-LB. FELT
2:12					2:12–4:12
2 15-LB. FELTS					2 15-LB. FELTS
X	X	X	X	X	X
					X
1986	1985	1985	1986	1987	1990
>1 MILLION	>1 MILLION	>1 MILLION	>1 MILLION	>1 MILLION	
300+	300+	300+	300+	300+	
20	20	20	20	20	
B. SARTAIN	B. SARTAIN	B. SARTAIN	B. SARTAIN	B. SARTAIN	GAF DISTRICT OFFICE
B. SARTAIN	B. SARTAIN	B. SARTAIN	B. SARTAIN	B. SARTAIN	800/ROOF–411
					X

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION
2. PRODUCT NAME	TIMBERLINE	GAF WOODLINE	SLATELINE
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	LAMINATED	LAMINATED	NONLAMINATED
C. GRANULE COMPOSITION	CERAMIC COATED	CERAMIC COATED	CERAMIC COATED
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	10	10	3
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP			
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP			X
D. SELF-SEALING NO CUTOUT	X	X	
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	YES
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	12 X 36	12 X 36	17 X 40
2. EXPOSURE (inches)	5	5	7 1/2
3. HEADLAP (inches)	2	2	2
4. SHINGLES PER ROOF SQUARE	80	80	48
5. BUNDLES PER SQUARE	4	4	4
6. WEIGHT PER ROOF SQUARE (pounds)			
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)	13 1/4 X 39 3/8	13 1/4 X 39 3/8	
2. EXPOSURE (inches)	5 5/8	5 5/8	
3. HEADLAP (inches)	2	2	
4. SHINGLES PER ROOF SQUARE	64	64	
5. BUNDLES PER SQUARE	4	3	
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	NATIONALLY	NATIONALLY	REGIONALLY
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	5:12	5:12	5:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	15-LB. FELT	15-LB. FELT	15-LB. FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	2:12–4:12	2:12–4:12	2:12–4:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 15-LB. FELTS	2 15-LB. FELTS	2 15-LB. FELTS
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD	X	X	X
C. WAFERBOARD			
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD	1980	1987	1988
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)			
B. DIRECT (number of regional service locations or no)			
13A. FOR SALES INFORMATION, CONTACT:	GAF DISTRICT OFFICE	GAF DISTRICT OFFICE	GAF DISTRICT OFFICE
13B. FOR TECHNICAL INFORMATION, CONTACT:	800/ROOF–411	800/ROOF–411	800/ROOF–411
14. SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1

GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION	GS ROOFING PRODUCTS CO.
MARQUIS	ROYAL SOVEREIGN	SENTINEL	YANKEE 25	DUBL-COVERAGE TITE-ON	FIRE-HALT
FIBERGLASS NONLAMINATED CERAMIC COATED	FIBERGLASS NONLAMINATED CERAMIC COATED	FIBERGLASS NONLAMINATED CERAMIC COATED	FIBERGLASS NONLAMINATED CERAMIC COATED	FIBERGLASS NONLAMINATED CERAMIC COATED	FIBERGLASS LAMINATED CERAMIC
6	10	9	5	7	5
REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL
X	X	X			
					X
			X		
				X	
YES	YES	NO	YES	YES	NO
12 X 36	12 X 36	12 X 36	12 X 36	20 3/16 X 21 1/2	12 X 36
5	5	5	5	6	5
2	2	2	2	2	2
80	80	80	80	100	80
3	3	3	3	3	4
	13 1/4 X 39 3/8	13 1/4 X 39 3/8			13 1/4 X 39 3/8
	5 5/8	5 5/8			5 5/8
	2	2			2
	65	65			
	3	3			4
NO	NO	NO	NO	NO	NATIONALLY
5:12 15-LB. FELT	5:12 15-LB. FELT	5:12 15-LB. FELT	5:12 15-LB. FELT	5:12 15-LB. FELT	4:12 15-LB. FELT
2:12–4:12 2 15-LB. FELTS	2:12–4:12 2 15-LB. FELTS	2:12–4:12 2 15-LB. FELTS	2:12–4:12 2 15-LB. FELTS	2:12–4:12 2 15-LB. FELTS	2:12 2 15-LB. FELTS
X	X	X	X	X	X
X	X	X	X	X	X
					X
1991	1984	1980	1992	1984	
					300+ NO
GAF DISTRICT OFFICE 800/ROOF–411	GAF DISTRICT OFFICE 800/ROOF–411	GAF DISTRICT OFFICE 800/ROOF–411	GAF DISTRICT OFFICE 800/ROOF–411	GAF DISTRICT OFFICE 800/ROOF–411	214/580–5600 214/580–5600
X	X	X	X	X	

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	GS ROOFING PRODUCTS CO.	GS ROOFING PRODUCTS CO.	GS ROOFING PRODUCTS CO.
2. PRODUCT NAME	FIRESCREEN PLUS	FIRESCREEN	SIERRA SHAKE
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	LAMINATED	LAMINATED	LAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	10	10	4
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP	X	X	
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP			X
D. SELF-SEALING NO CUTOUT			
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	YES
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	12 X 36	12 X 36	13 3/4 X 39 3/8
2. EXPOSURE (inches)	5	5	6
3. HEADLAP (inches)	2	2	2
4. SHINGLES PER ROOF SQUARE	80	80	
5. BUNDLES PER SQUARE	4	4	5
6. WEIGHT PER ROOF SQUARE (pounds)			
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)	13 1/4 X 39 3/8	13 1/4 X 39 3/8	
2. EXPOSURE (inches)	5 5/8	5 5/8	
3. HEADLAP (inches)	2	2	
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE	4	4	
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	NATIONALLY	NATIONALLY	NATIONALLY
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	15-LB. FELT	15-LB. FELT	15-LB. FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	2:12	2:12	2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 15-LB. FELTS	2 15-LB. FELTS	2 15-LB. FELTS
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD	X	X	X
C. WAFERBOARD	X	X	X
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD			1991
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)	300+	300+	100
B. DIRECT (number of regional service locations or no)	NO	NO	NO
13A. FOR SALES INFORMATION, CONTACT:	214/580-5600	214/580-5600	214/580-5600
13B. FOR TECHNICAL INFORMATION, CONTACT:	214/580-5600	214/580-5600	214/580-5600
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1

GS ROOFING PRODUCTS CO.	GS ROOFING PRODUCTS CO.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
HIGH SIERRA	ARCHITECT 80	CHATEAU GLASS	CHATEAU	CAMBRIDGE	RENAISSANCE XL
FIBERGLASS	FIBERGLASS	FIBERGLASS	ORGANIC	FIBERGLASS	ORGANIC
LAMINATED	LAMINATED	LAMINATED	LAMINATED	LAMINATED	NONLAMINATED
CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC
5	5	4	5	7	6
REGIONAL	REGIONAL	NATIONAL	REGIONAL	NATIONAL	REGIONAL
					X
X	X				
		X	X	X	
NO	NO	NO	YES	NO	YES
12 X 36	12 X 36	14 1/4 X 39 3/8	14 1/4 X 39 3/8	14 1/4 X 39 3/8	13 1/4 X 39 3/8
5	5	6 1/8	6 1/8	6 1/8	5 5/8
2	2	2	2	2	2
80	80	60	60	60	65
4	4	4	4	3	3
		320	300	247	249
13 1/4 X 39 3/8	13 1/4 X 39 3/8				
5 5/8	5 5/8				
2	2				
4	4				
NATIONALLY	NATIONALLY	NATIONALLY	REGIONALLY	NATIONALLY	REGIONALLY
4:12	4:12	4:12	4:12	4:12	4:12
15-LB. FELT	15-LB. FELT	15-LB. FELT	NA	15-LB. FELT	NA
2:12	2:12	2:12	2:12	2:12	2:12
2 15-LB. FELTS	2 15-LB. FELTS	2 NO.-15 FELTS OR ICE & WATER SHIELD	2 NO.-15 FELTS OR ICE & WATER SHIELD	2 NO.-15 FELTS OR ICE & WATER SHIELD	2 NO.-15 FELTS OR ICE & WATER SHIELD
X	X	X	X	X	X
X	X	X	X	X	X
X	X				
		1987	1978	1987	1992
300+	300+				
NO	NO	NO	NO	NO	NO
214/580-5600	214/580-5600	800/441-7296	800/441-7296	800/441-7296	800/441-7296
214/580-5600	214/580-5600	800/441-7296	800/441-7296	800/441-7296	800/441-7296

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
2. PRODUCT NAME	ROYAL VICTORIAN	TOTAL	ARISTOCRAT
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	ORGANIC	ORGANIC	ORGANIC
B. CONSTRUCTION (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	4	5	5/9
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP			X
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP	X		
D. SELF-SEALING NO CUTOUT		X	
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	YES
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 39 3/8
2. EXPOSURE (inches)	5 5/8	5 5/8	5 5/8
3. HEADLAP (inches)	2	2	2
4. SHINGLES PER ROOF SQUARE	65	65	65
5. BUNDLES PER SQUARE	3	3	3
6. WEIGHT PER ROOF SQUARE (pounds)	241	229	251
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			12 1/4 X 36
2. EXPOSURE (inches)			5 1/8
3. HEADLAP (inches)			2
4. SHINGLES PER ROOF SQUARE			78
5. BUNDLES PER SQUARE			3
6. WEIGHT PER ROOF SQUARE (pounds)			231
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	REGIONALLY
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	NA	NA	NA
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	2:12	2:12	2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 NO.-15 FELTS OR ICE & WATER SHIELD	2 NO.-15 FELTS OR ICE & WATER SHIELD	2 NO.-15 FELTS OR ICE & WATER SHIELD
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD	X	X	X
C. WAFERBOARD			
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD	1992	1978	1967
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)			
B. DIRECT (number of regional service locations or no)	NO	NO	NO
13A. FOR SALES INFORMATION, CONTACT:	800/441-7296	800/441-7296	800/441-7296
13B. FOR TECHNICAL INFORMATION, CONTACT:	800/441-7296	800/441-7296	800/441-7296
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1

IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
IMPERIAL GENTRY	ARMOUR SEAL/20	IMPERIAL SEAL/20	IMPERIAL GLASS/20	ARMOUR LOCK	NEW ENGLANDER
FIBERGLASS NONLAMINATED	ORGANIC NONLAMINATED	ORGANIC NONLAMINATED	FIBERGLASS NONLAMINATED	ORGANIC NONLAMINATED	ORGANIC NONLAMINATED
CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC	CERAMIC
9	14	12	12	7	4
REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL
X	X	X	X		
					X
				X	
YES	YES	YES	YES	YES	YES
12 1/4 X 36	13 1/4 X 39 3/8	12 1/4 X 36	12 1/4 X 36	23 7/8 X 20 7/8	13 1/4 X 39 3/8
5 1/8	5 5/8	5 1/8	5 1/8	16	5 5/8
2	2	2	2	2	2
78	65	78	78	86	65
3	3	3	3	3	3
235	213	216	207	225	213
				21 1/2 X 21 1/2	
				14	
				2	
				96	
				3	
				228	
REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY
4:12 15-LB. FELT	4:12 NA	4:12 NA	4:12 15-LB. FELT	4:12 NA	4:12 NA
2:12 2 NO.-15 FELTS OR ICE & WATER SHIELD	2:12 2 NO.-15 FELTS OR ICE & WATER SHIELD	2:12 2 NO.-15 FELTS OR ICE & WATER SHIELD	2:12 2 NO.-15 FELTS OR ICE & WATER SHIELD	2:12 2 NO.-15 FELTS OR ICE & WATER SHIELD	2:12 2 NO.-15 FELTS OR ICE & WATER SHIELD
X	X	X	X	X	X
X	X	X	X	X	X
1987	1959	1987	1987	1959	1982
NO	NO	NO	NO	NO	NO
800/441-7296	800/441-7296	800/441-7296	800/441-7296	800/441-7296	800/441-7296
800/441-7296	800/441-7296	800/441-7296	800/441-7296	800/441-7296	800/441-7296

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
2. PRODUCT NAME	SUPERPLUS	ULTRA LOCK	ARMOUR TITE
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	ORGANIC	ORGANIC	ORGANIC
B. CONSTRUCTION (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	13	4	5
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP	X		
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP			
D. SELF-SEALING NO CUTOUT			
E. INDIVIDUAL INTERLOCKING		X	X
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	YES
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	13 1/4 X 39 3/8	23 7/8 X 20 7/8	23 7/8 X 20 7/8
2. EXPOSURE (inches)	5 5/8	16	16
3. HEADLAP (inches)	2	2	2
4. SHINGLES PER ROOF SQUARE	65	86	86
5. BUNDLES PER SQUARE	3	3	3
6. WEIGHT PER ROOF SQUARE (pounds)	213	250	210
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			
2. EXPOSURE (inches)			
3. HEADLAP (inches)			
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE			
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	REGIONALLY
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	NA	NA	NA
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	2:12	2:12	2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 NO.-15 FELTS OR ICE & WATER SHIELD	2 NO.-15 FELTS OR ICE & WATER SHIELD	2 NO.-15 FELTS OR ICE & WATER SHIELD
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD	X	X	X
C. WAFERBOARD			
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD	1979	1990	1957
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)			
B. DIRECT (number of regional service locations or no)	NO	NO	NO
13A. FOR SALES INFORMATION, CONTACT:	800/441-7296	800/441-7296	800/441-7296
13B. FOR TECHNICAL INFORMATION, CONTACT:	800/441-7296	800/441-7296	800/441-7296
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1

HERBERT MALARKEY ROOFING COMPANY	HERBERT MALARKEY ROOFING COMPANY	HERBERT MALARKEY ROOFING COMPANY	HERBERT MALARKEY ROOFING COMPANY	HERBERT MALARKEY ROOFING COMPANY	HERBERT MALARKEY ROOFING COMPANY
#230 ALASKAN SBS MODIFIED	ASPEN	MONTEREY SBS MODIFIED	DURA-SEAL #202	DURA-SEAL #204	PRO-25 SBS MODIFIED
FIBERGLASS NONLAMINATED CERAMIC 9 REGIONAL	FIBERGLASS LAMINATED CERAMIC 6 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 4 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 9 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 9 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 9 REGIONAL
X			X	X	X
		X			
	X				
NO	NO	NO	NO	NO	NO
13 3/8 X 39 3/8	12 1/2 X 36 3/8	13 3/8 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 39 3/8
5 5/8	5 1/2	5 5/8	5 5/8	5 5/8	5 5/8
2	2	2	2	2	2
66	66	66	66	66	66
3	3	3	3	3	3
235	250	225	205	240	210
REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY
4:12 15- OR 30-LB. FELT	4:12 15- OR 30-LB. FELT	4:12 15- OR 30-LB. FELT	4:12 15- OR 30-LB. FELT	4:12 15- OR 30-LB. FELT	4:12 15- OR 30-LB. FELT
2:12 2 15-LB. FELTS ADHERED	2:12 2 15-LB. FELTS ADHERED	2:12 2 15-LB. FELTS ADHERED	2:12 2 15-LB. FELTS ADHERED	2:12 2 15-LB. FELTS ADHERED	2:12 2 15-LB. FELTS ADHERED
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
1986	1991	1992	1977	1978	1987
150+	150+	150+	150+	150+	150+
G. MALARKEY 800/545-1191 J. DECHANDT, S. WADDING 800/545-1191	G. MALARKEY 800/545-1191 J. DECHANDT, S. WADDING 800/545-1191	G. MALARKEY 800/545-1191 J. DECHANDT, S. WADDING 800/545-1191	G. MALARKEY 800/545-1191 J. DECHANDT, S. WADDING 800/545-1191	G. MALARKEY 800/545-1191 J. DECHANDT, S. WADDING 800/545-1191	G. MALARKEY 800/545-1191 J. DECHANDT, S. WADDING 800/545-1191

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS
2. PRODUCT NAME	WOODLANDS PREMIER	WOODLANDS	WOODLANDS EDGE
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	LAMINATED	LAMINATED	LAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	5	5	5
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP			
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP	X	X	X
D. SELF-SEALING NO CUTOUT			
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	YES
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	13 1/4 X 38 1/4	13 1/4 X 38 1/4	13 1/4 X 38 1/4
2. EXPOSURE (inches)	5 5/8	5 5/8	5 5/8
3. HEADLAP (inches)	2	2	2
4. SHINGLES PER ROOF SQUARE	64	64	66
5. BUNDLES PER SQUARE	4	4	3
6. WEIGHT PER ROOF SQUARE (pounds)	360	300	300
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			
2. EXPOSURE (inches)			
3. HEADLAP (inches)			
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE			
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	REGIONALLY
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	TYPE-15 FELT	TYPE-15 FELT	TYPE-15 FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	2:12	2:12	2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 PLIES TYPE-15 FELT	2 PLIES TYPE-15 FELT	2 PLIES TYPE-15 FELT
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD	X	X	X
C. WAFERBOARD	X	X	X
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD	1970	1970	1970
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)			
B. DIRECT (number of regional service locations or no)	3	3	3
14A. FOR SALES INFORMATION, CONTACT:	800/345-7663	800/345-7663	800/345-7663
14B. FOR TECHNICAL INFORMATION, CONTACT:	800/345-7663	800/345-7663	800/345-7663
15. SEE APPENDIX IF CHECKED	X	X	X

NA=not applicable

Asphalt Shingles Part 1

MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS
WOODLANDS II	WOODLANDS EDGE II	FIRE-KING	GUARDSMAN	GUARDSMAN EDGE	WEATHERSEAL
FIBERGLASS LAMINATED CERAMIC 8 REGIONAL	FIBERGLASS LAMINATED CERAMIC 5 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 7 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 6 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 6 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 14 REGIONAL
		X	X	X	X
X	X				
YES	YES	NO	YES	YES	YES
13 1/4 X 38 1/4	13 1/4 X 38 1/4	12 X 36	12 X 36	12 X 36	12 X 36
5 5/8	5 5/8	5	5	5	5
2	2	2	2	2	2
66	66	80	80	80	80
3	3	3	3	3	3
245	245	265	240	240	240
REGIONALLY	REGIONALLY	REGIONALLY	NO	NO	NO
4:12 TYPE-15 FELT	4:12 TYPE-15 FELT	4:12 TYPE-15 FELT	4:12 TYPE-15 FELT	4:12 TYPE-15 FELT	4:12 TYPE-15 FELT
2:12 2 PLIES TYPE-15 FELT	2:12 2 PLIES TYPE-15 FELT	2:12 2 PLIES TYPE-15 FELT	2:12 2 PLIES TYPE-15 FELT	2:12 2 PLIES TYPE-15 FELT	2:12 2 PLIES TYPE-15 FELT
X	X	X	X	X	X
X	X	X	X	X	X
X	X	X	X	X	X
1970	1970	1964	1985	1987	1986
3	3	3	3	3	3
800/345-7663	800/345-7663	800/345-7663	800/345-7663	800/345-7663	800/345-7663
800/345-7663	800/345-7663	800/345-7663	800/345-7663	800/345-7663	800/345-7663
X	X	X	X	X	X

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS	OWENS-CORNING FIBERGLAS CORPORATION
2. PRODUCT NAME	FIRE-GLASS	FIRE-GLASS EDGE	20-YEAR CLASSIC
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	20	7	22
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP	X	X	X
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP			
D. SELF-SEALING NO CUTOUT			
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	NO
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	12 X 36	12 X 36	12 X 36
2. EXPOSURE (inches)	5	5	5
3. HEADLAP (inches)	2	2	7
4. SHINGLES PER ROOF SQUARE	80	80	80
5. BUNDLES PER SQUARE	3	3	3
6. WEIGHT PER ROOF SQUARE (pounds)			
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			
2. EXPOSURE (inches)			
3. HEADLAP (inches)			
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE			
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	REGIONALLY	NO	REGIONALLY
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	TYPE-15 FELT	TYPE-15 FELT	15-LB. FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	2:12	2:12	2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 PLIES TYPE-15 FELT	2 PLIES TYPE-15 FELT	2 15-LB. FELTS & ICE/WATER SHIELD
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD	X	X	
C. WAFERBOARD	X	X	
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD	1964	1964	1959
11. NUMBER OF SQUARES INSTALLED			MILLIONS
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)	3	3	300+
B. DIRECT (number of regional service locations or no)			NO
14A. FOR SALES INFORMATION, CONTACT:	800/345-7663	800/345-7663	SEE OCF LISTING IN LOCAL PHONE BOOK
14B. FOR TECHNICAL INFORMATION, CONTACT:	800/345-7663	800/345-7663	J. ZUREICK 419/248-6848
15. SEE APPENDIX IF CHECKED	X	X	

NA=not applicable

Asphalt Shingles Part 1

OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION
25-YEAR SUPREME	25-YEAR CLASSIC SAVER (METRIC)	25-YEAR SUPREME SAVER (METRIC)	25-YEAR SUPREME SHADOW	25-YEAR CRESTWOOD SHADOW	20-YEAR GLASLOK
FIBERGLASS NONLAMINATED CERAMIC 18 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 8 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 10 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 8 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 6 REGIONAL	FIBERGLASS NONLAMINATED CERAMIC 8 REGIONAL
X	X	X	X		
				X	
					X
NO	YES				
12 X 36	13 1/8 X 39 3/8	13 1/8 X 39 3/8	12 X 36	12 1/4 X 36	21 1/16 X 21 8/16
5	5 5/8	5 5/8	5	4.5	
7	7 3/8	7 3/8	7	7.75	
80	66	66	80	84	96
3	3	3	3	3	3
REGIONALLY	REGIONALLY				NO
4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT
2:12 2 15-LB. FELTS & ICE/WATER SHIELD	2:12 2 15-LB. FELTS & ICE/WATER SHIELD	2:12 2 15-LB. FELTS & ICE/WATER SHIELD	2:12 2 15-LB. FELTS & ICE/WATER SHIELD	2:12 2 15-LB. FELTS & ICE/WATER SHIELD	2:12 2 15-LB. FELTS & ICE/WATER SHIELD
X	X	X	X	X	X
1988	1987	1986	1990	1990	1977
MILLIONS	MILLIONS	>1 MILLION	>1 MILLION	>1 MILLION	MILLIONS
300+ NO	300+ NO	50 NO	200+ NO	200+ NO	80 NO
SEE OCF LISTING IN LOCAL PHONE BOOK J. ZUREICK 419/248-6848	SEE OCF LISTING IN LOCAL PHONE BOOK J. ZUREICK 419/248-6848	SEE OCF LISTING IN LOCAL PHONE BOOK J. ZUREICK 419/248-6848	SEE OCF LISTING IN LOCAL PHONE BOOK J. ZUREICK 419/248-6848	SEE OCF LISTING IN LOCAL PHONE BOOK J. ZUREICK 419/248-6848	SEE OCF LISTING IN LOCAL PHONE BOOK J. ZUREICK 419/248-6848

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION
2. PRODUCT NAME	25-YEAR NO CUT-OUT	25-YEAR OAKRIDGE II	30-YEAR OAKRIDGE
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	NONLAMINATED	LAMINATED	LAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	8	8	8
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP			
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP		X	X
D. SELF-SEALING NO CUTOUT	X		
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)		NO	NO
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)		13 1/4 X 39 3/8	13 1/4 X 39 3/8
2. EXPOSURE (inches)		5 5/8	5 5/8
3. HEADLAP (inches)		7 3/4	7 3/4
4. SHINGLES PER ROOF SQUARE		66	66
5. BUNDLES PER SQUARE		3	3
6. WEIGHT PER ROOF SQUARE (pounds)			
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			
2. EXPOSURE (inches)			
3. HEADLAP (inches)			
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE			
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	NO	NO	NO
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	15-LB. FELT	15-LB. FELT	15-LB. FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)			
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2:12 2 15-LB. FELTS & ICE/WATER SHIELD		
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD			
C. WAFERBOARD			
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD	1988	1987	1987
11. NUMBER OF SQUARES INSTALLED	MILLIONS	MILLIONS	MILLIONS
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)	70	300+	300+
B. DIRECT (number of regional service locations or no)	NO	NO	NO
13A. FOR SALES INFORMATION, CONTACT:	SEE OCF LISTING IN LOCAL PHONE BOOK	SEE OCF LISTING IN LOCAL PHONE BOOK	SEE OCF LISTING IN LOCAL PHONE BOOK
13B. FOR TECHNICAL INFORMATION, CONTACT:	J. ZUREICK 419/248-6848	J. ZUREICK 419/248-6848	J. ZUREICK 419/248-6848
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1

OWENS-CORNING FIBERGLAS CORPORATION	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS
40-YEAR OAKRIDGE SHADOW	PABCO PREMIER 25 YEAR	PABCO PREMIER 30 YEAR	PABCO PREMIER 40 YEAR	PABCO HM-30	PABCO HO-25
FIBERGLASS LAMINATED CERAMIC 8 REGIONAL	FIBERGLASS LAMINATED CERAMIC 7 REGIONAL	FIBERGLASS LAMINATED CERAMIC 7 REGIONAL	FIBERGLASS LAMINATED CERAMIC 7 REGIONAL	FIBERGLASS LAMINATED CERAMIC 7 REGIONAL	FIBERGLASS LAMINATED CERAMIC 9 REGIONAL
				X	X
X					
	X	X	X		
NO	NO	NO	NO	NO	NO
13 1/4 X 39 3/8 5 5/8 7 3/4 66 3	13 1/4 X 40 5 5/8 7 5/8 64 4 240	13 1/4 X 40 5 5/8 7 5/8 64 4 300	13 1/4 X 40 5 5/8 7 5/8 64 4 340	13 1/4 X 39 3/8 5 5/8 7 5/8 65 4 300	13 1/4 X 39 3/8 5 5/8 7 5/8 65 3 240
	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY	REGIONALLY
4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT	4:12 15-LB. FELT
	2:12 2 15-LB. FELTS	2:12 2 15-LB. FELTS	2:12 2 15-LB. FELTS	2:12 2 15-LB. FELTS	2:12 2 15-LB. FELTS
X	X	X	X	X	X
	X	X	X	X	X
	X	X	X	X	X
1987					
MILLIONS					
300+ NO					
SEE OCF LISTING IN LOCAL PHONE BOOK J. ZUREICK 419/248-6848	H. BOUCHEE, B. HUMMER 800/776-3563 S. DINWIDDIE 510/234-2130	H. BOUCHEE, B. HUMMER 800/776-3563 S. DINWIDDIE 510/234-2130	H. BOUCHEE, B. HUMMER 800/776-3563 S. DINWIDDIE 510/234-2130	H. BOUCHEE, B. HUMMER 800/776-3563 S. DINWIDDIE 510/234-2130	H. BOUCHEE, B. HUMMER 800/776-3563 S. DINWIDDIE 510/234-2130

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS
2. PRODUCT NAME	PABCO GT-25	PABCO SG-25	PABCO GG-20
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	FIBERGLASS	FIBERGLASS	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	NONLAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	7	12	12
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP	X	X	X
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP			
D. SELF-SEALING NO CUTOUT			
E. INDIVIDUAL INTERLOCKING			
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	13 1/4 X 39 3/8	13 1/4 X 39 3/8	13 1/4 X 39 3/8
2. EXPOSURE (inches)	5 5/8	5 5/8	5 5/8
3. HEADLAP (inches)	7 5/8	7 5/8	7 5/8
4. SHINGLES PER ROOF SQUARE	65	65	65
5. BUNDLES PER SQUARE	3	3	3
6. WEIGHT PER ROOF SQUARE (pounds)			
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			
2. EXPOSURE (inches)			
3. HEADLAP (inches)			
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE			
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	REGIONALLY
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	15-LB. FELT	15-LB. FELT	15-LB. FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	2:12	2:12	2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 15-LB. FELTS	2 15-LB. FELTS	2 15-LB. FELTS
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD	X	X	X
C. WAFERBOARD	X	X	X
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD			
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)			
B. DIRECT (number of regional service locations or no)			
13A. FOR SALES INFORMATION, CONTACT:	H. BOUCHEE, B. HUMMER	H. BOUCHEE, B. HUMMER	H. BOUCHEE, B. HUMMER
	800/776-3563	800/776-3563	800/776-3563
13B. FOR TECHNICAL INFORMATION, CONTACT:	S. DINWIDDIE	S. DINWIDDIE	S. DINWIDDIE
	510/234-2130	510/234-2130	510/234-2130
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1

PABCO ROOFING PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS
PABCO SD-20	ORGANIC-25 SEAL-DOWN	GLASS-SEAL	TAM-BRIGHT	ELITE GLASS SEAL	ELITE GLASS SEAL FRS
ORGANIC	ORGANIC	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS
NONLAMINATED	NONLAMINATED	NONLAMINATED	NONLAMINATED	NONLAMINATED	NONLAMINATED
CERAMIC	CERAMIC	CERAMIC	COPPER/CERAMIC	CERAMIC	COPPER/CERAMIC
6	14	14	6	10	5
REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL
X	X	X	X	X	X
NO	YES	NO	NO	NO	YES
13 1/4 X 39 3/8	12X 36	12X 36	12X 36	12X 36	12X 36
5 5/8	5	5	5	5	5
7 5/8	2	2	2	2	2
65	80	80	80	80	80
3	3	3	3	3	3
REGIONALLY	REGIONALLY	REGIONALLY	NO	REGIONALLY	NO
4:12	4:12	4:12	4:12	4:12	4:12
15-LB. FELT	NO.-15 FELT	NO.-15 FELT	NO.-15 FELT	NO.-15 FELT	NO.-15 FELT
2:12	2:12	2:12	2:12	2:12	2:12
2 15-LB. FELTS	2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL	2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL
X	X	X	X	X	X
X					
X					
	1946	1979	1983	1984	1985
	>6,000 NO	>6,000 NO	>2,000 NO	>6,000 NO	>2,000 NO
H. BOUCHEE, B. HUMMER 800/776-3563 S. DINWIDDIE 510/234-2130	DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644	DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644	DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644	DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644	DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS
2. PRODUCT NAME	TAM-GRIP	TAM-LOC GLASS	HERITAGE
3. PRODUCT DESCRIPTION			
A. FELT MATERIAL (organic/fiberglass)	ORGANIC	FIBERGLASS	ORGANIC
B. CONSTRUCTION (laminated/nonlaminated)	NONLAMINATED	NONLAMINATED	LAMINATED
C. GRANULE COMPOSITION	CERAMIC	CERAMIC	CERAMIC
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	13	14	5
E. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL
4. SHINGLE TYPE			
A. SELF-SEALING 3-TAB STRIP			
B. SELF-SEALING 4-TAB STRIP			
C. SELF-SEALING RANDOM-TAB STRIP			X
D. SELF-SEALING NO CUTOUT			
E. INDIVIDUAL INTERLOCKING	X	X	
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	YES	YES
6A. DIMENSIONS AND COVERAGE: SIZE 1			
1. SHINGLE DIMENSIONS (inches x inches)	21 X 21 1/2	21 X 21 1/2	12X 36
2. EXPOSURE (inches)			5
3. HEADLAP (inches)			2
4. SHINGLES PER ROOF SQUARE	99	99	80
5. BUNDLES PER SQUARE	3	3	4
6. WEIGHT PER ROOF SQUARE (pounds)			
6B. DIMENSIONS AND COVERAGE: SIZE 2			
1. SHINGLE DIMENSIONS (inches x inches)			
2. EXPOSURE (inches)			
3. HEADLAP (inches)			
4. SHINGLES PER ROOF SQUARE			
5. BUNDLES PER SQUARE			
6. WEIGHT PER ROOF SQUARE (pounds)			
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	REGIONALLY	REGIONALLY	REGIONALLY
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	NO.-15 FELT	NO.-15 FELT	NO.-15 FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)			2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION			2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL
9. RECOMMENDED DECK MATERIAL			
A. PLYWOOD/WOOD	X	X	X
B. ORIENTED-STRAND BOARD			
C. WAFERBOARD			
D. OTHER (specify)			
10. YEAR PRODUCT FIRST SOLD	1969	1984	1976
11. NUMBER OF SQUARES INSTALLED			
12. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)	>3,000	>3,000	>2,000
B. DIRECT (number of regional service locations or no)	NO	NO	NO
13A. FOR SALES INFORMATION, CONTACT:	DISTRICT OFFICE	DISTRICT OFFICE	DISTRICT OFFICE
13B. FOR TECHNICAL INFORMATION, CONTACT:	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644	TECHNICAL SERVICE 417/624-6644
14. SEE APPENDIX IF CHECKED			

NA=not applicable

Asphalt Shingles Part 1

TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS
HERITAGE II	HERITAGE II FRS	HERITAGE 30	HERITAGE 30 FRS	HERITAGE PREMIUM SHADOWTONE	HERITAGE PREMIUM
ORGANIC	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS
LAMINATED	LAMINATED	LAMINATED	LAMINATED	LAMINATED	LAMINATED
CERAMIC	COPPER/CERAMIC	CERAMIC	COPPER/CERAMIC	CERAMIC	CERAMIC
7	3	7	3	7	7
NATIONAL	REGIONAL	NATIONAL	REGIONAL	REGIONAL	REGIONAL
X	X	X	X	X	X
NO	YES	NO	YES	YES	YES
12 X 36 15/16	12 X 36 15/16	12X 36	12X 36	12X 36	12X 36
5	5	5	5	5	5
2	2	2	2	2	2
78	78	80	80	80	80
3	3	4	4	4	4
NATIONALLY	NO	NATIONALLY	NO	REGIONALLY	REGIONALLY
4:12 NO.-15 FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT	4:12 NO.-15 FELT
2:12 2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL	2:12 2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL	2:12 2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL	2:12 2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL	2:12 2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL	2:12 2 NO.-15 FELTS, MOISTURE GUARD OPTIONAL
X	X	X	X	X	X
1985	1992	1989	1992	1992	1988
>6,000 NO	>2,000 NO	>6,000 NO	>2,000 NO	3,000	3,000
DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644	DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644	DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644	DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644	DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644	DISTRICT OFFICE TECHNICAL SERVICE 417/624-6644

Asphalt Shingles Part 1: General Information

1. COMPANY NAME	TEGOLA CANADESE
2. PRODUCT NAME	PRESTIGE COPPER SHINGLES
3. PRODUCT DESCRIPTION	
A. FELT MATERIAL (organic/fiberglass)	FIBERGLASS
B. CONSTRUCTION (laminated/nonlaminated)	LAMINATED
C. GRANULE COMPOSITION	COPPER SHEET
D. NUMBER OF COLORS AVAILABLE (/ marks number by region)	1
E. COLOR AVAILABLILITY (regional/national)	NATIONAL
4. SHINGLE TYPE	
A. SELF-SEALING 3-TAB STRIP	X
B. SELF-SEALING 4-TAB STRIP	
C. SELF-SEALING RANDOM-TAB STRIP	
D. SELF-SEALING NO CUTOUT	
E. INDIVIDUAL INTERLOCKING	
5. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO
6A. DIMENSIONS AND COVERAGE: SIZE 1	
1. SHINGLE DIMENSIONS (inches x inches)	12 X 39
2. EXPOSURE (inches)	5 1/2
3. HEADLAP (inches)	2 1/2
4. SHINGLES PER ROOF SQUARE	63
5. BUNDLES PER SQUARE	3
6. WEIGHT PER ROOF SQUARE (pounds)	240
6B. DIMENSIONS AND COVERAGE: SIZE 2	
1. SHINGLE DIMENSIONS (inches x inches)	
2. EXPOSURE (inches)	
3. HEADLAP (inches)	
4. SHINGLES PER ROOF SQUARE	
5. BUNDLES PER SQUARE	
6. WEIGHT PER ROOF SQUARE (pounds)	
7. HIP/RIDGE SHINGLES AVAILABLE (nationally, regionally, no)	NO
8. SLOPE/UNDERLAYMENT RECOMMENDATIONS	
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	3:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	15-LB. FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	<3:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	TORCHED INTO APP MEMBRANE
9. RECOMMENDED DECK MATERIAL	
A. PLYWOOD/WOOD	X
B. ORIENTED-STRAND BOARD	X
C. WAFERBOARD	X
D. OTHER (specify)	
10. YEAR PRODUCT FIRST SOLD	1982
11. NUMBER OF SQUARES INSTALLED	>50,000
12. DISTRIBUTION	
A. DISTRIBUTORS (number handling product or no)	30
B. DIRECT (number of regional service locations or no)	1
13A. FOR SALES INFORMATION, CONTACT:	800/545-4140
13B. FOR TECHNICAL INFORMATION, CONTACT:	800/545-4140
14. SEE APPENDIX IF CHECKED	X

NA=not applicable

Asphalt Shingles

Part 2

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	BIRD INC.	BIRD INC.
2. PRODUCT NAME	LIMITED EDITION	ARCHITECT 90
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	TYPE I
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	YES	YES
5. SEE APPENDIX IF CHECKED		

1. COMPANY NAME	BIRD INC.	BIRD INC.
2. PRODUCT NAME	WOODSCAPE	MARK 80
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	TYPE I
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	YES	YES
5. SEE APPENDIX IF CHECKED		

NA=not applicable

Asphalt Shingles Part 2

BIRD INC.	BIRD INC.	BIRD INC.	BIRD INC.	BPCO INC.	BPCO INC.
FIRELINE FIBERGLASS	SEAL KING FIBERGLASS	JET FIBERGLASS	WIND SEAL 80 FIBERGLASS	ESGARD SIGNATURE FIBERGLASS	ELEGANCE ORGANIC
CLASS A YES	CLASS A YES	CLASS A	CLASS A	CLASS A YES	CLASS C YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
NA	NA	NA	NA	NA	TYPE III
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	NA
YES	YES	YES	YES		NA

BPCO INC.	BPCO INC.	BPCO INC.	BPCO INC.	BPCO INC.	BPCO INC.
ROOFMASTER PLUS ORGANIC	ROOFMASTER ORGANIC	ESGARD TRADITION ORGANIC	ESGARD 20 ORGANIC	ESGARD NCO ORGANIC	TITE-LOK ORGANIC
CLASS C YES	CLASS C YES	CLASS C YES	CLASS C YES	CLASS C YES	CLASS C YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE II
TYPE III	TYPE III	TYPE III	TYPE III	TYPE III	TYPE III
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	CELOTEX CORPORATION	CELOTEX CORPORATION
2. PRODUCT NAME	SOL SEAL/20	STANDARD STRIP/20
FELT MATERIAL	ORGANIC	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)		CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)		YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA)		
Type I Shingles with a factory-appled adhesive (self-sealing)		TYPE I
Type II Shingles of the lock-type, with mechanically interlocking tabs or ears		
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES*		
ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA)		NA
Type I Uniform or nonuniform thickness shingles of any style		
Type II Thick butt, square tab, strip shingles		
Type III Uniform or nonuniform thickness shingles of any style		
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA)		
Type I Self-sealing	NA	TYPE I
Type II Non-self-sealing		
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	NA	NO
5. SEE APPENDIX IF CHECKED	X	

1. COMPANY NAME	CELOTEX CORPORATION	CELOTEX CORPORATION
2. PRODUCT NAME	FRS STANDARD STRIP/20	STANDARD STRIP/20 METRIC
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA)		
Type I Shingles with a factory-appled adhesive (self-sealing)	TYPE I	TYPE I
Type II Shingles of the lock-type, with mechanically interlocking tabs or ears		
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES*		
ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA)	NA	NA
Type I Uniform or nonuniform thickness shingles of any style		
Type II Thick butt, square tab, strip shingles		
Type III Uniform or nonuniform thickness shingles of any style		
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA)		
Type I Self-sealing	TYPE I	TYPE I
Type II Non-self-sealing		
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	NO	NO
5. SEE APPENDIX IF CHECKED	X	

NA=not applicable

Asphalt Shingles Part 2

CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION
STORM KING/25 FIBERGLASS	FRS STORM KING/25 FIBERGLASS	STORM KING/25 METRIC FIBERGLASS	DIMENSIONAL III/30 FIBERGLASS	FRS DIMENSIONAL III/30 FIBERGLASS	DIMENSIONAL IV/25 FIBERGLASS
CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
NA	NA	NA	NA	NA	NA
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
YES	YES	YES	YES	YES	NO
	X			X	

CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION	CELOTEX CORPORATION	CERTAINTEED CORPORATION
FRS DIMENSIONAL IV/25 FIBERGLASS	PRESIDENTIAL SHAKE SHINGLE FIBERGLASS	FRS PRESIDENTIAL SHAKE SHINGLE FIBERGLASS	DIMENSIONAL 365/40 SHAKE SHINGLE FIBERGLASS	FRS DIMENSIONAL 365/40 SHAKE SHANGLE FIBERGLASS	GRAND MANOR SHANGLE FIBERGLASS
CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
NA	NA	NA	NA	NA	NA
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
NO	YES	YES	YES	YES	YES
X	X	X		X	X

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION
2. PRODUCT NAME	HALLMARK SHANGLE	HALLMARK SHANGLE
FELT MATERIAL	FIBERGLASS	ORGANIC
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS C
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	NO
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	TYPE I
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	NA
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	YES	NA
5. SEE APPENDIX IF CHECKED	X	X

1. COMPANY NAME	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION
2. PRODUCT NAME	INDEPENDENCE SHANGLE	INDEPENDENCE SHANGLE
FELT MATERIAL	FIBERGLASS	ORGANIC
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS C
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	NO
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	TYPE I
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	NA
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	YES	NA
5. SEE APPENDIX IF CHECKED	X	X

NA=not applicable

Asphalt Shingles Part 2

CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION
HORIZON SHANGLE FIBERGLASS	HORIZON SHANGLE ORGANIC	HEARTHSTEAD FIBERGLASS	HEARTHSTEAD ORGANIC	CUSTOM SEALDON ORGANIC	CERTAINTEED XT25 FIBERGLASS
CLASS A YES	CLASS C YES	CLASS A YES	CLASS C YES	CLASS C YES	CLASS A YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
NA	TYPE III	NA	TYPE III	TYPE I	NA
TYPE I	NA	TYPE I	NA	NA	TYPE I
YES	NA	YES	NA	NA	YES
X	X	X	X	X	X

CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CERTAINTEED CORPORATION	CUSTOM ROOFING COMPANY
FUNGUSBUSTER 25 FIBERGLASS	SEALDON 20 ORGANIC	CERTAINTEED 20 FIBERGLASS	SOLID SLAB ORGANIC	CUSTOM LOK 25 ORGANIC	SEAL-TOP FIBERGLASS
CLASS A YES	CLASS C YES	CLASS A YES	CLASS C YES	CLASS C YES	CLASS A YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE II	TYPE I
NA	TYPE III	NA	TYPE III	TYPE III	NA
TYPE I	NA	TYPE I	NA	NA	TYPE I
YES	NA	YES	NA	NA	YES
X	X	X	X	X	

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	CUSTOM ROOFING COMPANY	CUSTOM ROOFING COMPANY
2. PRODUCT NAME	DYNASTY	VANGUARD
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	TYPE I
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	YES	YES
5. SEE APPENDIX IF CHECKED		

1. COMPANY NAME	CUSTOM ROOFING COMPANY	CUSTOM ROOFING COMPANY
2. PRODUCT NAME	VANGUARD III	DIAMOND CREST III
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	TYPE I
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	YES	YES
5. SEE APPENDIX IF CHECKED		

NA=not applicable

Asphalt Shingles Part 2

CUSTOM ROOFING COMPANY CORPORATION	GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION
T-LOCK	TIMBERLINE ULTRA	TIMBERLINE	GAF WOODLINE	SLATELINE	MARQUIS
FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS
CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES
TYPE II	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
NA	NA	NA	NA	NA	NA
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
YES	YES			YES	YES
	X	X	X	X	X

GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION	GAF BUILDING MATERIALS CORPORATION	GS ROOFING PRODUCTS CO.	GS ROOFING PRODUCTS CO.
ROYAL SOVEREIGN	SENTINAL	YANKEE 25	DUBL-COVERAGE TITE-ON	FIRE-HALT	FIRESCREEN PLUS
FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS	FIBERGLASS
CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES
TYPE I	TYPE I	TYPE I	TYPE I		
NA	NA	NA	NA	NA	NA
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
YES		YES			
X	X	X	X		

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	GS ROOFING PRODUCTS CO.	GS ROOFING PRODUCTS CO.
2. PRODUCT NAME	FIRESCREEN	SIERRA SHAKE
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears		
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*		
5. SEE APPENDIX IF CHECKED		

1. COMPANY NAME	GS ROOFING PRODUCTS CO.	GS ROOFING PRODUCTS CO. INC.
2. PRODUCT NAME	HIGH SIERRA	ARCHITECT 80
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears		
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*		
5. SEE APPENDIX IF CHECKED		

NA=not applicable

Asphalt Shingles Part 2

IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
CHATEAU GLASS FIBERGLASS	CHATEAU ORGANIC	CAMBRIDGE FIBERGLASS	RENAISSANCE XL ORGANIC	ROYAL VICTORIAN ORGANIC	TOTAL ORGANIC
CLASS A YES	CLASS C YES	CLASS A YES	CLASS C YES	CLASS C YES	CLASS C YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
NA	TYPE III	NA	TYPE III	TYPE III	TYPE III
TYPE I	NA	TYPE I	NA	NA	NA
YES	NA	YES	NA	NA	NA

IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
ARISTOCRAT ORGANIC	IMPERIAL GENTRY FIBERGLASS	ARMOUR SEAL/20 ORGANIC	IMPERIAL SEAL/20 ORGANIC	IMPERIAL GLASS/20 FIBERGLASS	ARMOUR LOCK ORGANIC
CLASS C YES	CLASS A YES	CLASS C YES	CLASS C YES	CLASS A YES	CLASS C YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE II
TYPE III	NA	TYPE III	TYPE III	NA	TYPE III
NA	TYPE I	NA	NA	TYPE I	NA
NA	YES	NA	NA	YES	NA

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
2. PRODUCT NAME	NEW ENGLANDER	SUPERPLUS
FELT MATERIAL	ORGANIC	ORGANIC
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS C	CLASS C
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	TYPE I
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	TYPE III	TYPE III
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	NA	NA
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	NA	NA
5. SEE APPENDIX IF CHECKED		

1. COMPANY NAME	IKO MANUFACTURING INC.	IKO MANUFACTURING INC.
2. PRODUCT NAME	ULTRA LOCK	ARMOUR TITE
FELT MATERIAL	ORGANIC	ORGANIC
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS C	CLASS C
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE II	TYPE II
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	TYPE III	TYPE III
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	NA	NA
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	NA	NA
5. SEE APPENDIX IF CHECKED		

NA=not applicable

Asphalt Shingles Part 2

HERBERT MALARKEY ROOFING COMPANY	HERBERT MALARKEY ROOFING COMPANY	HERBERT MALARKEY ROOFING COMPANY	HERBERT MALARKEY ROOFING COMPANY	HERBERT MALARKEY ROOFING COMPANY	HERBERT MALARKEY ROOFING COMPANY
#230 ALASKAN SBS MODIFIED FIBERGLASS	ASPEN FIBERGLASS	MONTEREY SBS MODIFIED FIBERGLASS	DURA-SEAL #202 FIBERGLASS	DURA-SEAL #204 FIBERGLASS	PRO-25 SBS MODIFIED FIBERGLASS
CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
NA	NA	NA	NA	NA	NA
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
YES	YES	YES	YES	YES	YES

MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS
WOODLANDS PREMIER FIBERGLASS	WOODLANDS FIBERGLASS	WOODLANDS EDGE FIBERGLASS	WOODLANDS II FIBERGLASS	WOODLANDS EDGE II FIBERGLASS	FIRE-KING FIBERGLASS
CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
NA	NA	NA	NA	NA	NA
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
YES	YES	YES	YES	YES	YES
X	X	X	X	X	X

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS
2. PRODUCT NAME	GUARDSMAN	GUARDSMAN EDGE
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	TYPE I
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	YES	YES
5. SEE APPENDIX IF CHECKED	X	X

1. COMPANY NAME	MANVILLE ROOFING SYSTEMS	MANVILLE ROOFING SYSTEMS
2. PRODUCT NAME	WEATHERSEAL	FIRE-GLASS
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	TYPE I
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*	YES	YES
5. SEE APPENDIX IF CHECKED	X	X

Asphalt Shingles Part 2

MANVILLE ROOFING SYSTEMS	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION
FIRE-GLASS EDGE FIBERGLASS	20-YEAR CLASSIC FIBERGLASS	25-YEAR SUPREME FIBERGLASS	25-YEAR CLASSIC SAVER (METRIC) FIBERGLASS	25-YEAR SUPREME SAVER (METRIC) FIBERGLASS	25-YEAR SUPREME SHADOW FIBERGLASS
CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
NA	NA	NA	NA	NA	NA
TYPE I	TYPE I	TYPE I	TYPE I	TYPE I	TYPE I
YES					
X					

OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION	OWENS-CORNING FIBERGLAS CORPORATION
25-YEAR CRESTWOOD SHADOW FIBERGLASS	20-YEAR GLASLOK FIBERGLASS	25-YEAR NO CUT-OUT FIBERGLASS	25-YEAR OAKRIDGE II FIBERGLASS	30-YEAR OAKRIDGE FIBERGLASS	40-YEAR OAKRIDGE SHADOW FIBERGLASS
CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES
TYPE I	TYPE II	TYPE I	TYPE I	TYPE I	TYPE I
NA	NA	NA	NA	NA	NA
TYPE I	TYPE II	TYPE I	TYPE I	TYPE I	TYPE I

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS
2. PRODUCT NAME	PABCO PREMIER 25 YEAR	PABCO PREMIER 30 YEAR
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	TYPE I
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*		
5. SEE APPENDIX IF CHECKED		

1. COMPANY NAME	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS
2. PRODUCT NAME	PABCO PREMIER 40 YEAR	PABCO HM-30
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	TYPE I
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*		
5. SEE APPENDIX IF CHECKED		

NA=not applicable

Asphalt Shingles Part 2

PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	PABCO ROOFING PRODUCTS	TAMKO ASPHALT PRODUCTS
PABCO H0-25 FIBERGLASS	PABCO GT-25 FIBERGLASS	PABCO SG-25 FIBERGLASS	PABCO GG-20 FIBERGLASS	PABCO SG-20 ORGANIC	ORGANIC-25 SEAL-DOWN ORGANIC
CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS C YES	CLASS C YES
TYPE I	TYPE I	TYPE I	TYPE I		TYPE I
NA	NA	NA	NA	TYPE I	TYPE III
TYPE I	TYPE I	TYPE I	TYPE I	NA	NA
				NA	

TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS
GLASS-SEAL FIBERGLASS	TAM-BRIGHT FIBERGLASS	ELITE GLASS SEAL FIBERGLASS	ELITE GLASS SEAL FRS FIBERGLASS	TAM-GRIP ORGANIC	TAM-LOC GLASS FIBERGLASS
CLASS A YES	CLASS A YES	CLASS A YES	CLASS A YES	CLASS C YES	CLASS A YES
TYPE I	TYPE I	TYPE I	TYPE I	TYPE II	TYPE II
NA	NA	NA	NA	TYPE I	NA
TYPE I	TYPE I	TYPE I	TYPE I	NA	TYPE II

Asphalt Shingles Part 2: Technical Data

1. COMPANY NAME	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS
2. PRODUCT NAME	HERITAGE	HERITAGE II
FELT MATERIAL	ORGANIC	ORGANIC
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS C	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	TYPE I
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	TYPE I	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	NA	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*		
5. SEE APPENDIX IF CHECKED		

1. COMPANY NAME	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS
2. PRODUCT NAME	HERITAGE II FRS	HERITAGE 30
FELT MATERIAL	FIBERGLASS	FIBERGLASS
3. FIRE/WIND RATINGS		
A. FIRE RATING PER UL STANDARD 790 (Class A, B, or C)	CLASS A	CLASS A
B. WIND RATING PER UL STANDARD 997 (yes/no)	YES	YES
4. COMPLIES WITH:		
A. ASTM D3161-81 *STANDARD TEST METHOD FOR WIND RESISTANCE OF ASPHALT SHINGLES* (indicate type or NA) Type I Shingles with a factory-appled adhesive (self-sealing) Type II Shingles of the lock-type, with mechanically interlocking tabs or ears	TYPE I	TYPE I
B. ASTM D225-86 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES* ORGANIC FELT) SURFACED WITH MINERAL GRANULES (indicate type or NA) Type I Uniform or nonuniform thickness shingles of any style Type II Thick butt, square tab, strip shingles Type III Uniform or nonuniform thickness shingles of any style	NA	NA
C. ASTM D3018-90 *STANDARD SPECIFICATION FOR CLASS A SHINGLES SURFACED WITH MINERAL GRANULES* (indicate type or NA) Type I Self-sealing Type II Non-self-sealing	TYPE I	TYPE I
D. ASTM D3462-87 *STANDARD SPECIFICATION FOR ASPHALT SHINGLES MADE FROM GLASS FELT AND SURFACED WITH MINERAL GRANULES (yes, no, or NA)*		
5. SEE APPENDIX IF CHECKED		

NA=not applicable

Asphalt Shingles Part 2

TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TAMKO ASPHALT PRODUCTS	TEGOLA CANADESE
HERITAGE 30 FRS FIBERGLASS	HERITAGE PREMIUM SHADOWTONE FIBERGLASS	HERITAGE PREMIUM FIBERGLASS	PRESTIGE COPPER SHINGLES FIBERGLASS
CLASS A YES	CLASS A YES	CLASS A YES	CLASS A NO
TYPE I	TYPE I	TYPE I	
NA	NA	NA	NA
TYPE I	TYPE I	TYPE I	NA
			NA
			X

Fiber-Cement Roof Components

Fiber-Cement Roof Components

1. COMPANY NAME	AMERICAN CEMWOOD CORPORATION	AMERICAN CEMWOOD CORPORATION	CAL-SHAKE, INC.	CAL-SHAKE, INC.
2. PRODUCT NAME	CEMWOOD SHAKE	PERMATEK	CAL-SHAKE	CAL-SLATE
3. STYLE				
A. SIMULATED SHINGLE (specific type if applicable)				
B. SIMULATED SHAKE (specific type if applicable)	X	X	X	
C. SIMULATED SLATE (specific type if applicable)				X
D. SIMULATED TILE (specific type if applicable)				
E. OTHER				
F. NUMBER OF COLORS AVAILABLE	2	3	4	4
4. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	YES	YES
5. MATERIAL COMPOSITION	NONASBESTOS WOOD FIBERS AND PORTLAND CEMENT	NONASBESTOS WOOD FIBERS AND PORTLAND CEMENT	PORTLAND CEMENT, PERLITE, INORGANIC FIBERS, SYNTHETIC MINERAL OXIDES	PORTLAND CEMENT, PERLITE, INORGANIC FIBERS, SYNTHETIC MINERAL OXIDES
6. FACTORY-APPLIED COATING (yes/no)	YES	YES	YES	YES
7. DIMENSIONS AND COVERAGE				
A. DIMENSIONS (inches x inches)	12, 7, AND 5 X 22	14 X 14 1/2	12 X 22	12 X 22
B. EXPOSURE (inches)	10	11 1/4	10	10
C. HEADLAP (inches)	12	3		
D. PIECES PER ROOF SQUARE	168	96	120	120
E. BUNDLES PER SQUARE	14	12	10	10
F. WEIGHT PER ROOF SQUARE (ambient temp.,pounds)	580	450	560	560
G. FASTENERS REQUIRED (nails, staples, or specify)	NAILS, STAPLES	NAILS, STAPLES	STAPLES	STAPLES
8. HIP/RIDGE PIECES AVAILABLE? (yes/no)	YES	YES	YES	YES
9. SLOPE/INTERLAYMENT–UNDERLAYMENT RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12	4:12
B. INTERLAYMENT RECOMMENDED IN NORMAL APPLICATION	TYPE-30 FELT		TYPE-30 FELT: "SHAKELINER"	TYPE-30 FELT: "SHAKELINER"
C. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION		TYPE-30 FELT	NONE	NONE
D. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	3:12		3:12	3:12
E. INTERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	TYPE-30 FELT		TYPE-30 FELT: "SHAKELINER"	TYPE-30 FELT: "SHAKELINER"
F. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	TYPE-30 FELT		TYPE-15 FELT	TYPE-15 FELT
10. RECOMMENDED DECKS				
A. TYPES				
1. SOLID SHEATHING	X	X	X	X
2. SPACED SHEATHING	X	X	X	X
B. MATERIAL				
1. PLYWOOD/WOOD	X	X	X	X
2. ORIENTED-STRAND BOARD	X	X		
3. WAFERBOARD	X	X		
4. OTHER (specify)				
11. YEAR PRODUCT FIRST SOLD	1989	1984	1972	1991
12. NUMBER OF SQUARES INSTALLED	300,000 ±	250,000 ±		
13. DISTRIBUTION				
A. DISTRIBUTORS (number handling product or no)	250 ±	250 ±	300 +	300 +
B. DIRECT (number of regional service locations or no)	NO	NO	NO	NO
14. FIRE/WIND RATINGS				
A. FIRE RATING(S) AVAILABLE (per UL Standard 790)	CLASS A	CLASS A AND B	CLASS A	CLASS A
B. FIRE RATING(S) AVAILABLE (per ASTM E108)	CLASS A	CLASS A AND B	CLASS A	CLASS A
C. WIND UPLIFT RATING (per UL Standard 580)				
15. ACCEPTED BY THE FOLLOWING CODES	ICBO CITY OF LOS ANGELES	ICBO CITY OF LOS ANGELES	LOS ANGELES CITY (RR23859) ICBO (2882)	LOS ANGELES CITY (RR23859) ICBO (2882)
16A. FOR SALES INFORMATION, CONTACT:	M. WHITE 800/367–3471	M. WHITE 800/367–3471	CUSTOMER SERVICE 800/736–7663	CUSTOMER SERVICE 800/736–7663
16B. FOR TECHNICAL INFORMATION, CONTACT:	D. WELKER 800/367–3471	D. WELKER 800/367–3471	TECHNICAL SERVICES 800/736–7663	TECHNICAL SERVICES 800/736–7663
17. SEE APPENDIX IF CHECKED				

NA= not applicable

Fiber-Cement Roof Components

CAL-SHAKE, INC.	ETERNIT, INC.	ETERNIT, INC.	FIBRECEM CORPORATION	FIBRECEM CORPORATION	FIBRECEM CORPORATION	FIBRECEM CORPORATION
CAL-CLAY	ETERNIT ROOFING SLATES CONTINENTAL	ETERNIT ROOFING SLATES ENGLISH	BEAVER SHINGLES	CAROLINA SLATE	SOUTHERN SLATE	EUROSLATE
	X	X	X	X	X	X
CLAY SHINGLE						
1	3	3	1	1	4	
YES	NO	NO	NO	NO	NO	NO
PORTLAND CEMENT, PERLITE, INORGANIC FIBERS, SYNTHETIC MINERAL OXIDES	NONASBESTOS FIBER-REINFORCED CEMENT	NONASBESTOS FIBER-REINFORCED CEMENT	NONASBESTOS WOOD FIBERS AND POPRTLAND CEMENT	NONASBESTOS WOOD FIBERS AND POPRTLAND CEMENT	NONASBESTOS WOOD FIBERS AND POPRTLAND CEMENT	NONASBESTOS WOOD FIBERS AND POPRTLAND CEMENT
YES	YES		YES	YES	YES	YES
12 X 22	10 5/8 X 15 3/4	11 13/16 X 23 5/8	23 1/2 X 15 5/8	23 1/2 X 14 3/4	11 3/4 X 17 3/4	16 X 20
10	5 7/8 OR 6 7/8	10 13/16 OR 9 13/16	6 1/4	5 7/8	7 7/8 OR 7 3/8	9 OR 8 1/2
	2 OR 4		3	3	2 OR 3	2 OR 3
120	197 OR 231	113 OR 124	96	107	155 OR 166	100 OR 106
10			9.6	10.7	15.5 OR 16.6	10 OR 10.6
560	398 OR 467	384 OR 422	422	435	387 OR 415	383 OR 402
STAPLES	NAILS		NAILS	NAILS	NAILS	NAILS
YES	YES		NO	NO	NO	NO
4:12 TYPE-30 FELT: "SHAKELINER" NONE	5:12 30-LB FELT	5:12 30-LB FELT	4:12 15-LB FELT	4:12 15-LB FELT	4:12 15-LB FELT	4:12 15-LB FELT
3:12 TYPE-30 FELT: "SHAKELINER" TYPE-15 FELT	3:12 2 30-LB FELTS	3:12 2 30-LB FELTS	3:12 2 15-LB FELTS	3:12 2 15-LB FELTS	3:12 2 15-LB FELTS	3:12 2 15-LB FELTS
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
			X	X	X	X
1992	1984	1984	1988	1991	1988	1988
			> 30,000	> 2,000	> 30,000	> 30,000
300 +			150	150	150	150
NO			NO	NO	NO	NO
CLASS A			CLASS A	CLASS A	CLASS A	CLASS A
CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A	CLASS A
			CLASS 60	CLASS 60	CLASS 60	CLASS 60
LOS ANGELES CITY (RR23859) ICBO (2682)	ICBO METRO-DADE COUNTY	ICBO METRO-DADE COUNTY	SBCCI STATE OF NEW YORK	SBCCI STATE OF NEW YORK	SBCCI STATE OF NEW YORK	SBCCI STATE OF NEW YORK
CUSTOMER SERVICE 800/736-7663 TECHNICAL SERVICES 800/736-7663	B. RUNKLE 800/233-3155 B. HABHOLZ 800/233-3155	B. RUNKLE 800/233-3155 B. HABHOLZ 800/233-3155	F. TALBERT 800/346-6147 S. BITTINGER 800/346-6147	F. TALBERT 800/346-6147 S. BITTINGER 800/346-6147	F. TALBERT 800/346-6147 S. BITTINGER 800/346-6147	F. TALBERT 800/346-6147 S. BITTINGER 800/346-6147

Fiber-Cement Roof Components

1. COMPANY NAME	JAMES HARDIE BUILDING PRODUCTS INC.	MAXITILE, INC.	MAXITILE, INC.	SUPRADUR MANUFACTURING CORPORATION
2. PRODUCT NAME	HARDISHAKE ROOFING	MAXITILE	MAXISHAKE	SUPRA-SLATE II
3. STYLE				
A. SIMULATED SHINGLE (specific type if applicable)	X			
B. SIMULATED SHAKE (specific type if applicable)			X	
C. SIMULATED SLATE (specific type if applicable)				X
D. SIMULATED TILE (specific type if applicable)		X		
E. OTHER				
F. NUMBER OF COLORS AVAILABLE	6			5
4. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	YES	NO	NO	NO
5. MATERIAL COMPOSITION	CEMENT, SAND, MINERAL OXIDES, ADDITIVES, CELLULOSE FIBER	CELLULOSE FIBERS, PORTLAND CEMENT, SILICA, AND COLORING PIGMENTS	CELLULOSE FIBERS, PORTLAND CEMENT, SILICA, AND COLORING PIGMENTS	ASBESTOS-FREE FIBER, CELLULOSE, PORTLAND CEMENT
6. FACTORY-APPLIED COATING (yes/no)	NO			
7. DIMENSIONS AND COVERAGE				
A. DIMENSIONS (inches x inches)	12, 8, AND 6 X 22	37 X 24	12, 8, AND 6 X 22	9.35 X 16
B. EXPOSURE (inches)	10	30 X 20	10	7
C. HEADLAP (inches)	12	4	12	2
D. PIECES PER ROOF SQUARE		24		220
E. BUNDLES PER SQUARE			9.6	10
F. WEIGHT PER ROOF SQUARE (ambient temp.,pounds)	400	340	380	500
G. FASTENERS REQUIRED (nails, staples, or specify)	NAILS ONLY	SCREWS, NAILS	NAILS	NAILS
8. HIP/RIDGE PIECES AVAILABLE? (yes/no)	YES	YES	NO	YES
9. SLOPE/INTERLAYMENT–UNDERLAYMENT RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	3:12	3:12	3:12	5:12
B. INTERLAYMENT RECOMMENDED IN NORMAL APPLICATION	18-IN. NO.-30 ORGANIC FELT	NA	TYPE-30 FELT	NA
C. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION		TYPE-30 FELT	TYPE-30 FELT	2 15-LB FELTS
D. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)	3:12			3:12
E. INTERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	18-IN. NO.-30 ORGANIC FELT			NA
F. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	NO.-40 FIBERGLASS OR NO.-72 MINERAL CAP SHEET	CLASS A FIRE RATING: TYPE-40 MINERAL SURFACE FELT	CLASS A FIRE RATING: TYPE-40 ORGANIC FELT	2 30-LB FELTS
10. RECOMMENDED DECKS				
A. TYPES				
1. SOLID SHEATHING	X	X	X	X
2. SPACED SHEATHING	X	X	X	
B. MATERIAL				
1. PLYWOOD/WOOD	X	X	X	X
2. ORIENTED-STRAND BOARD				
3. WAFERBOARD				
4. OTHER (specify)				
11. YEAR PRODUCT FIRST SOLD	1980	1986	1990	1976
12. NUMBER OF SQUARES INSTALLED	100,000 +	200,000	20,000	300,000 +
13. DISTRIBUTION				
A. DISTRIBUTORS (number handling product or no)	100 +	300 +	300 +	500 +
B. DIRECT (number of regional service locations or no)	NO	NO	NO	NO
14. FIRE/WIND RATINGS				
A. FIRE RATING(S) AVAILABLE (per UL Standard 790)		CLASS A AND B	CLASS A AND B	CLASS A
B. FIRE RATING(S) AVAILABLE (per ASTM E108)	CLASS A AND B	CLASS A AND B	CLASS A AND B	CLASS A
C. WIND UPLIFT RATING (per UL Standard 580)		CLASS 90	CLASS 90	
15. ACCEPTED BY THE FOLLOWING CODES	BOCA, ICBO, SBCCI, METRO.-DADE COUNTY CITY OF LOS ANGELES	ICBO, METRO-DADE COUNTY, SBCCI	ICBO, METRO-DADE COUNTY, SBCCI	
16A. FOR SALES INFORMATION, CONTACT:	CUSTOMER SERVICE 800/942–7343	S. GAMBLE 800/338–TILE	S. GAMBLE 800/338–TILE	SALES SERVICE 800/223–1948
16B. FOR TECHNICAL INFORMATION, CONTACT:	TECHNICAL SERVICE 714/356–6300	B. PRIEBE 800/338–TILE	B. PRIEBE 800/338–TILE	M. MUELLER 800/223–1948
17. SEE APPENDIX IF CHECKED				

NA = not applicable

Fiber-Cement Roof Components

SUPRADUR MANUFACTURING CORPORATION	SUPRADUR MANUFACTURING CORPORATION	SUPRADUR MANUFACTURING CORPORATION	SUPRADUR MANUFACTURING CORPORATION	SUPRADUR MANUFACTURING CORPORATION	SUPRADUR MANUFACTURING CORPORATION
HERITAGE SLATE	WESTERN SHAKE	AMERICAN TRADITIONAL	HEXAGONAL	DUTCH LAP	TWIN LAP
		X	X	X	X
	X				
X					
3	2	7	2	2	3
NO	NO	NO	NO	NO	NO
ASBESTOS-FREE FIBER, CELLULOSE, PORTLAND CEMENT	ASBESTOS-FREE FIBER, CELLULOSE, PORTLAND CEMENT	ASBESTOS-FREE FIBER, CELLULOSE, PORTLAND CEMENT	ASBESTOS-FREE FIBER, CELLULOSE, PORTLAND CEMENT	ASBESTOS-FREE FIBER, CELLULOSE, PORTLAND CEMENT	ASBESTOS-FREE FIBER, CELLULOSE, PORTLAND CEMENT
11.88 X 23.38	9.35 X 16	14 X 30	16 X 16	16 X 16	12 X 24
11	7	6	13	13	9
2	2	2	3	3	3
112	220	80	88	92	80
8	10	5	4	4	4
390	500	360	240	250	244
NAILS	NAILS	NAILS	NAILS	NAILS	NAILS
NO	YES	YES	NO	YES	YES
5:12 NA 2 15-LB FELTS	5:12 NA 2 15-LB FELTS	5:12 NA 2 15-LB FELTS	5:12 NA 2 15-LB FELTS	5:12 NA 2 15-LB FELTS	5:12 NA 2 15-LB FELTS
3:12 NA 2 30-LB FELTS	3:12 NA 2 30-LB FELTS	3:12 NA 2 30-LB FELTS	3:12 NA 2 30-LB FELTS	3:12 NA 2 30-LB FELTS	3:12 NA 2 30-LB FELTS
X	X	X	X	X	X
X	X	X	X	X	X
1990	1976	1952	1976	1976	1956
3,000	20,000	160,000	16,000	16,000	20,000
500 + NO	500 + NO	500 + NO	500 + NO	500 + NO	500 + NO
CLASS A CLASS A	CLASS A CLASS A	CLASS A CLASS A	CLASS B CLASS B	CLASS B CLASS B	CLASS B CLASS B
SALES SERVICE 800/223-1948 M. MUELLER 800/223-1948	SALES SERVICE 800/223-1948 M. MUELLER 800/223-1948	SALES SERVICE 800/223-1948 M. MUELLER 800/223-1948	SALES SERVICE 800/223-1948 M. MUELLER 800/223-1948	SALES SERVICE 800/223-1948 M. MUELLER 800/223-1948	SALES SERVICE 800/223-1948 M. MUELLER 800/223-1948

Clay and Concrete Tile

Clay Tile

1. COMPANY NAME	BORAL CONCRETE PRODUCTS U.S. TILE		BORAL CONCRETE PRODUCTS U.S. TILE		BORAL CONCRETE PRODUCTS U.S. TILE	
2. PRODUCT NAME	"S" TILE		TAPERED MISSION TILE		FLAT SHINGLE TILE	
3. TILE TYPE						
A. "S" (SPANISH) MISSION BARREL, ONE PIECE	X					
B. STRAIGHT BARREL MISSION, TWO PIECE			X			
C. TAPERED MISSION, TWO PIECE						
D. FLAT, ONE PIECE						
E. FLAT, INTERLOCKING, ONE PIECE					X	
F. FLAT PAN AND COVER, TWO PIECE						
4. TILE DESCRIPTION						
A. TEXTURE (specify or NA)	SMOOTH AND RUSTIC		SMOOTH AND RUSTIC		SMOOTH AND RUSTIC	
B. FINISHES	NATURAL	CERAMIC GLAZE	NATURAL	CERAMIC GLAZE	NATURAL	CERAMIC GLAZE
1. NUMBER OF COLORS AVAILABLE	12	5	12	5	12	
2. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL	
3. CUSTOM COLORS/BLENDS AVAILABLE (yes/no)	YES	YES	YES	NO		
4. CUSTOM SHAPES AVILABLE (yes/no)	NO	NO	NO	NO		
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES		YES		YES	
6. DIMENSIONS AND COVERAGE						
A. TILE DIMENSIONS (inches x inches)	13 X 18		8 X 18		9 X 18	
B. EXPOSED SIZE (inches x inches)	11 X 18		8 X 15		8 X 15	
C. PIECES PER ROOF SQUARE	88		174		107	
D. WEIGHT PER ROOF SQUARE (pounds)	900		1,000		1,030	
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS						
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	3:12		3:12		3:12	
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	TYPE-30 FELT		TYPE-30 FELT		TYPE-30 FELT	
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot or NA)	<3:12		<3:12		<3:12	
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	BUILT-UP ROOF		BUILT-UP ROOF		BUILT-UP ROOF	
8. DECKS AND FASTENING RECOMMENDATIONS (fastening system in normal application or NA)						
A. METAL	TILE TIE SYSTEM		TILE TIE SYSTEM		TILE TIE SYSTEM	
B. PLYWOOD	NAILS		NAILS		NAILS	
C. WOOD PLANK	NAILS		NAILS		NAILS	
D. ORIENTED-STRAND BOARD	NAILS		NAILS		NAILS	
E. WAFERBOARD	NAILS		NAILS		NAILS	
F. GYPSUM/NAILABLE CONCRETE	TILE TIE SYSTEM		TILE TIE SYSTEM		TILE TIE SYSTEM	
G. OTHER (specify)						
9. YEAR PRODUCT FIRST SOLD	1974		1974		1974	
10. NUMBER OF SQUARES INSTALLED	300,000		200,000		100,000	
11. DISTRIBUTION						
A. DISTRIBUTORS (number handling product or no)	170		170		170	
B. DIRECT (number of regional service locations or no)	NO		NO		NO	
12. TECHNICAL INFORMATION						
COMPLIES WITH ASTM STANDARD C1167-90 *STANDARD SPECIFICATION FOR CLAY ROOF TILE* (check grade and type or enter none)						
GRADE 1 Providing resistance to severe frost action GRADE 2 Providing resistance to moderate frost action GRADE 3 Providing negligible resistance to any frost action	X		X		X	
TYPE I High-profile: rise-to-width ratio greater than 1:4 TYPE II Low-profile: rise-to-width ratio equal to or less than 1:4 TYPE III All other tiles, including flat	X		X		X	
13. ACCEPTED BY THE FOLLOWING CODES	ICBO (3523)		ICBO (3523)		ICBO (3523)	
14A. FOR SALES INFORMATION, CONTACT: 14B. FOR TECHNICAL INFORMATION, CONTACT:	909/272-3590		909/272-3590		909/272-3590	
15. SEE APPENDIX IF CHECKED						

NA=not applicable

Clay Tile

DELEO CLAY TILE CO., INC.	DELEO CLAY TILE CO., INC.	DELEO CLAY TILE CO., INC.	GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN
"S"	TWO-PIECE MISSION	BELLA	LINCOLN S-TILE	SPANISH S-TILE	CORDOVA
X			X	X	
	X	X			X
SMOOTH AND RUSTIC	SMOOTH AND RUSTIC	SMOOTH AND RUSTIC	SMOOTH	SMOOTH	SMOOTH
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
30 NATIONAL / CUSTOM NATIONAL	30 NATIONAL / CUSTOM NATIONAL	30 NATIONAL / CUSTOM NATIONAL	2 NATIONAL / CUSTOM NATIONAL	1 NATIONAL / CUSTOM NATIONAL	3 NATIONAL / CUSTOM NATIONAL
YES / YES	YES / YES	YES / YES	NO / NO	YES / YES	YES / YES
NO / NO	NO / NO	NO / NO	YES / YES	YES / YES	YES / YES
YES	YES	YES	YES	YES	YES
13 X 18	18 X 9 TAPERING TO 7 1/2	18 X 6 3/4 TAPERING TO 5 1/2	13 1/4 X 20	11 1/4 X 18	7 3/4 X 18
15	15	15	13 1/4 X 17	11 1/4 X 15	7 3/4 X 14
88	166	240	75	107	190
850	1,000	1,000	975	900	900
3:12 2 TYPE-30 FELTS	3:12 2 TYPE-30 FELTS	3:12 2 TYPE-30FELTS	3:12 30- OR 40-LB FELT	4:12 30- OR 40-LB FELT	4:12 30- OR 40-LB FELT
2:12 2 TYPE-30FELTS	2:12 2 TYPE-30FELTS	2:12 2 TYPE-30FELTS	2:12 2 30-LB FELTS NAILED AND SOLID MOPPED	3:12 2 30-LB FELTS NAILED AND SOLID MOPPED	3:12 2 30-LB FELTS NAILED AND SOLID MOPPED
NA	NA	NA	STAINLESS STEEL FASTENING SYSTEM	STAINLESS STEEL FASTENING SYSTEM	STAINLESS STEEL FASTENING SYSTEM
TYLE TYE OR GALVANIZED NAILS	TYLE TYE OR GALVANIZED NAILS	TYLE TYE OR GALVANIZED NAILS	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS
NA	NA	NA	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS
1979	1979	1991	1875	1875	1875
±200	±200	±200	50	50	50
			X	X	X
			X	X	X
ICBO	ICBO		ICBO (4642)	ICBO (4642)	ICBO (4642)
800/654-1119 800/237-9461 (CA) 800/654-1119 800/237-9461 (CA)	800/654-1119 800/237-9461 (CA) 800/654-1119 800/237-9461 (CA)	800/654-1119 800/237-9461 (CA) 800/654-1119 800/237-9461 (CA)	800/776-1133 800/776-1133	800/776-1133 800/776-1133	800/776-1133 800/776-1133

Clay Tile

1. COMPANY NAME	GLADDING MCBEAN		GLADDING MCBEAN		GLADDING MCBEAN	
2. PRODUCT NAME	LINCOLN INTERLOCKING		LINCOLN GLAZED SHINGLE		ITALIAN PAN AND ITALIAN COVERS	
3. TILE TYPE						
A. "S" (SPANISH) MISSION BARREL, ONE PIECE						
B. STRAIGHT BARREL MISSION, TWO PIECE						
C. TAPERED MISSION, TWO PIECE						
D. FLAT, ONE PIECE						
E. FLAT, INTERLOCKING, ONE PIECE	X		X			
F. FLAT PAN AND COVER, TWO PIECE					X	
4. TILE DESCRIPTION						
A. TEXTURE (specify or NA)	SMOOTH		SMOOTH		SMOOTH	
B. FINISHES	NATURAL	CERAMIC GLAZE	NATURAL	CERAMIC GLAZE	NATURAL	CERAMIC GLAZE
1. NUMBER OF COLORS AVAILABLE	2	CUSTOM	CUSTOM	CUSTOM	2	CUSTOM
2. COLOR AVAILABLILITY (regional/national)	NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL
3. CUSTOM COLORS/BLENDS AVAILABLE (yes/no)	NO	YES	NO	YES	YES	YES
4. CUSTOM SHAPES AVILABLE (yes/no)	YES	YES	YES	YES	YES	YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES		YES		YES	
6. DIMENSIONS AND COVERAGE						
A. TILE DIMENSIONS (inches x inches)	10 X 14		11 1/2 X 15		12 X 18	
B. EXPOSED SIZE (inches x inches)	9 X 11		10 3/4 X 12		12 X 14	
C. PIECES PER ROOF SQUARE	145		114		108	
D. WEIGHT PER ROOF SQUARE (pounds)	950		850		1,040	
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS						
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12		4:12		4:12	
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	30- OR 40-LB FELT		30- OR 40-LB FELT		30- OR 40-LB FELT	
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot or NA)	3:12		3:12		3:12	
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 30-LB FELTS NAILED AND SOLID MOPPED		2 30-LB FELTS NAILED AND SOLID MOPPED		2 30-LB FELTS NAILED AND SOLID MOPPED	
8. DECKS AND FASTENING RECOMMENDATIONS (fastening system in normal application or NA)						
A. METAL	STAINLESS STEEL FASTENING SYSTEM		STAINLESS STEEL FASTENING SYSTEM		STAINLESS STEEL FASTENING SYSTEM	
B. PLYWOOD	TILE TIE OR NONCORROSIVE NAILS		TILE TIE OR NONCORROSIVE NAILS		TILE TIE OR NONCORROSIVE NAILS	
C. WOOD PLANK	NA		NA		NA	
D. ORIENTED-STRAND BOARD	NA		NA		NA	
E. WAFERBOARD	TILE TIE OR NONCORROSIVE NAILS		TILE TIE OR NONCORROSIVE NAILS		TILE TIE OR NONCORROSIVE NAILS	
F. GYPSUM/NAILABLE CONCRETE	TILE TIE OR NONCORROSIVE NAILS		TILE TIE OR NONCORROSIVE NAILS		TILE TIE OR NONCORROSIVE NAILS	
G. OTHER (specify)						
9. YEAR PRODUCT FIRST SOLD	1875		1875		1875	
10. NUMBER OF SQUARES INSTALLED						
11. DISTRIBUTION						
A. DISTRIBUTORS (number handling product or no)						
B. DIRECT (number of regional service locations or no)						
12. TECHNICAL INFORMATION						
COMPLIES WITH ASTM STANDARD C1167-90 *STANDARD SPECIFICATION FOR CLAY ROOF TILE* (check grade and type or enter none)						
GRADE 1 Providing resistance to severe frost action	X		X		X	
GRADE 2 Providing resistance to moderate frost action						
GRADE 3 Providing negligible resistance to any frost action						
TYPE I High-profile: rise-to-width ratio greater than 1:4						
TYPE II Low-profile: rise-to-width ratio equal to or less than 1:4	X		X		X	
TYPE III All other tiles, including flat						
13. ACCEPTED BY THE FOLLOWING CODES	ICBO (4642)		ICBO (4642)		ICBO (4642)	
14A. FOR SALES INFORMATION, CONTACT:	800/776-1133		800/776-1133		800/776-1133	
14B. FOR TECHNICAL INFORMATION, CONTACT:	800/776-1133		800/776-1133		800/776-1133	
15. SEE APPENDIX IF CHECKED						

NA=not applicable

Clay Tile

GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN	GLADDING MCBEAN	LUDOWICI-CELADON, INC.	LUDOWICI-CELADON, INC.
BERKELY PAN AND BERKELY COVER	ITALIAN PAN AND BERKELY COVER	ITALIAN PAN AND CORDOVA COVER	BERKLEY PAN AND CORDOVA COVER	SPANISH	LANAI
				X	
					X
X	X	X	X		
SMOOTH	SMOOTH	SMOOTH	SMOOTH	SMOOTH	SANDED
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
2 / CUSTOM	2 / CUSTOM	2 / CUSTOM	2 / CUSTOM	1 / 12	1 / 12
NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
YES / YES	YES / YES	YES / YES	YES / YES	NO / YES	NO / YES
YES / YES	YES / YES	YES / YES	YES / YES	YES / YES	YES / YES
YES	YES	YES	YES	YES	YES
8 1/2 X 18	8 1/2 X 18 / 12 X 18	12 X 18 / 8 X 18	8 1/2 X 18 / 8 X 18	13 1/4 X 9 3/4	14 X 9
11 X 14	15 X 14	14 1/2 X 14	10 3/4 X 14	10 1/4 X 6 1/4	11 X 8 1/4
187	138	142	192	171	158
1,400	1,200	1,080	1,250	900	800
4:12	4:12	4:12	4:12	4:12	3:12
30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT	40-LB FELT	40-LB FELT
3:12	3:12	3:12	3:12	< 4:12	< 3:12
2 30-LB FELTS NAILED AND SOLID MOPPED	2 30-LB FELTS NAILED AND SOLID MOPPED	2 30-LB FELTS NAILED AND SOLID MOPPED	2 30-LB FELTS NAILED AND SOLID MOPPED	WINTERGUARD OR BUILT-UP ROOFING	WINTERGUARD OR BUILT-UP ROOFING
STAINLESS STEEL FASTENING SYSTEM	STAINLESS STEEL FASTENING SYSTEM	STAINLESS STEEL FASTENING SYSTEM	STAINLESS STEEL FASTENING SYSTEM	STAINLESS STEEL SHEET METAL SCREWS	STAINLESS STEEL SHEET METAL SCREWS
TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS
NA	NA	NA	NA	11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS
NA	NA	NA	NA	NA	NA
TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	NA	NA
TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	TILE TIE OR NONCORROSIVE NAILS	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS
				NA	NA
1875	1875	1875	1875	1900	1948
				>500,000	>500,000
				NO	NO
				58	58
X	X	X	X	X	X
X	X	X	X	X	X
ICBO (4642)	ICBO (4642)	ICBO (4642)	ICBO (NO. 4642)	ICBO (4872), UBC, METRO-DADE COUNTY	ICBO (4872), UBC, METRO-DADE COUNTY
800/776-1133	800/776-1133	800/776-1133	800/776-1133	800/945-8453	800/945-8453
800/776-1133	800/776-1133	800/776-1133	800/776-1133	800/945-8453	800/945-8453
				X	X

Clay Tile

1. COMPANY NAME	LUDOWICI-CELADON, INC.		LUDOWICI-CELADON, INC.		LUDOWICI-CELADON, INC.	
2. PRODUCT NAME	CLASSIC		AMERICANA		WILLIAMSBURG	
3. TILE TYPE						
A. "S" (SPANISH) MISSION BARREL, ONE PIECE						
B. STRAIGHT BARREL MISSION, TWO PIECE						
C. TAPERED MISSION, TWO PIECE						
D. FLAT, ONE PIECE						
E. FLAT, INTERLOCKING, ONE PIECE	X		X		X	
F. FLAT PAN AND COVER, TWO PIECE						
4. TILE DESCRIPTION						
A. TEXTURE (specify or NA)	SMOOTH		TREE BARK		HAND-SPLIT SHAKE	
B. FINISHES	NATURAL	CERAMIC GLAZE	NATURAL	CERAMIC GLAZE	NATURAL	CERAMIC GLAZE
1. NUMBER OF COLORS AVAILABLE	1	12	1	12	1	12
2. COLOR AVAILABILITY (regional/national)	NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL
3. CUSTOM COLORS/BLENDS AVAILABLE (yes/no)	NO	YES	NO	YES	NO	YES
4. CUSTOM SHAPES AVILABLE (yes/no)	YES	YES	YES	YES	YES	YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES		YES		YES	
6. DIMENSIONS AND COVERAGE						
A. TILE DIMENSIONS (inches x inches)	14 X 9		14 X 9		14 X 9	
B. EXPOSED SIZE (inches x inches)	11 X 8 1/4		11 X 8 1/4		11 X 8 1/4	
C. PIECES PER ROOF SQUARE	158		158		158	
D. WEIGHT PER ROOF SQUARE (pounds)	800		800		800	
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS						
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	3:12		3:12		3:12	
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	40-LB FELT		40-LB FELT		40-LB FELT	
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot or NA)	< 3:12		< 3:12		< 3:12	
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	WINTERGUARD OR BUILT-UP ROOFING		WINTERGUARD OR BUILT-UP ROOFING		WINTERGUARD OR BUILT-UP ROOFING	
8. DECKS AND FASTENING RECOMMENDATIONS (fastening system in normal application or NA)						
A. METAL	STAINLESS STEEL SHEET METAL SCREWS		STAINLESS STEEL SHEET METAL SCREWS		STAINLESS STEEL SHEET METAL SCREWS	
B. PLYWOOD	11-GAUGE RING SHANK COPPER NAILS		11-GAUGE RING SHANK COPPER NAILS		11-GAUGE RING SHANK COPPER NAILS	
C. WOOD PLANK	11-GAUGE RING SHANK COPPER NAILS		11-GAUGE RING SHANK COPPER NAILS		11-GAUGE RING SHANK COPPER NAILS	
D. ORIENTED-STRAND BOARD	NA		NA		NA	
E. WAFERBOARD	NA		NA		NA	
F. GYPSUM/NAILABLE CONCRETE	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS		SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS		SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS	
G. OTHER (specify)	NA		NA		NA	
9. YEAR PRODUCT FIRST SOLD	1948		1948		1925	
10. NUMBER OF SQUARES INSTALLED	>500,000		>500,000		>500,000	
11. DISTRIBUTION						
A. DISTRIBUTORS (number handling product or no)	NO		NO		NO	
B. DIRECT (number of regional service locations or no)	58		58		58	
12. TECHNICAL INFORMATION						
COMPLIES WITH ASTM STANDARD C1167-90 *STANDARD SPECIFICATION FOR CLAY ROOF TILE* (check grade and type or enter none)						
GRADE 1 Providing resistance to severe frost action GRADE 2 Providing resistance to moderate frost action GRADE 3 Providing negligible resistance to any frost action	X		X		X	
TYPE I High-profile: rise-to-width ratio greater than 1:4 TYPE II Low-profile: rise-to-width ratio equal to or less than 1:4 TYPE III All other tiles, including flat	X		X		X	
13. ACCEPTED BY THE FOLLOWING CODES	ICBO (4872), UBC, METRO-DADE COUNTY		ICBO (4872), UBC, METRO-DADE COUNTY		ICBO (4872), UBC, METRO-DADE COUNTY	
14A. FOR SALES INFORMATION, CONTACT:	800/945-8453		800/945-8453		800/945-8453	
14B. FOR TECHNICAL INFORMATION, CONTACT:	800/945-8453		800/945-8453		800/945-8453	
15. SEE APPENDIX IF CHECKED	X		X		X	

NA=not applicable

Clay Tile

LUDOWICI-CELADON, INC.	LUDOWICI-CELADON, INC.	LUDOWICI-CELADON, INC.	LUDOWICI-CELADON, INC.	LUDOWICI-CELADON, INC.	LUDOWICI-CELADON, INC.
FRENCH	IMPERIAL	NORMAN	14 1/4" MISSION	18" MISSION	JAMESTOWN
			X	X	
		X			
X	X				X
DEEP FLUTED	SMOOTH	WEATHERED/CRATERED	FINE MACHINE SCORED	FINE MACHINE SCORED	HAND-SPLIT SHAKE
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
1 / 12	1 / 12	0 / 1	1 / 12	1 / 12	1 / 12
NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL
NO / YES	NO / YES	NO / NO	NO / YES	NO / YES	NO / YES
YES / YES	YES / YES	YES / YES	YES / YES	YES / YES	YES / YES
YES	YES	YES	YES	YES	YES
16 1/4 X 9	15 X 10	15 X 7	14 1/4 X 8	18 X 8	11 X 8 3/4
13 3/8 X 8 1/4	12 X 9 1/4	6 1/2 X 7	11 1/4 X 5 3/4	15 X 5 3/4	8 X 8
133	129	317	225	166	225
935	800	1,600	1,250	1,220	900
3:12	3:12	5:12	5:12	5:12	3:12
40-LB FELT	40-LB FELT	40-LB FELT	40-LB FELT	40-LB FELT	40-LB FELT
< 3:12	< 3:12	< 5:12	< 5:12	< 5:12	< 3:12
WINTERGUARD OR BUILT-UP ROOFING	WINTERGUARD OR BUILT-UP ROOFING	WINTERGUARD OR BUILT-UP ROOFING	WINTERGUARD OR BUILT-UP ROOFING	WINTERGUARD OR BUILT-UP ROOFING	WINTERGUARD OR BUILT-UP ROOFING
STAINLESS STEEL SHEET METAL SCREWS	STAINLESS STEEL SHEET METAL SCREWS	STAINLESS STEEL SHEET METAL SCREWS	STAINLESS STEEL SHEET METAL SCREWS	STAINLESS STEEL SHEET METAL SCREWS	STAINLESS STEEL SHEET METAL SCREWS
11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS
11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS	11-GAUGE RING SHANK COPPER NAILS
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS
NA	NA	NA	NA	NA	NA
1890	1980	1920	1900	1900	1910
>500,000	>5,000	>100,000	>500,000	>500,000	>250,000
NO	NO	NO	NO	NO	NO
58	58	58	58	58	58
X	X	X	X	X	X
			X	X	
X	X	X			X
ICBO (4872), UBC, METRO-DADE COUNTY	ICBO (4872), UBC, METRO-DADE COUNTY	ICBO (4872), UBC, METRO-DADE COUNTY	ICBO (4872), UBC, METRO-DADE COUNTY	ICBO (4872), UBC, METRO-DADE COUNTY	ICBO (4872), UBC, METRO-DADE COUNTY
800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453
800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453	800/945-8453
X	X	X	X	X	X

Clay Tile

1. COMPANY NAME	LUDOWICI-CELADON, INC.		LUDOWICI-CELADON, INC.		LUDOWICI-CELADON, INC.	
2. PRODUCT NAME	CLOSED SHINGLE		TILESTONE		EARLY AMERICAN OLD TYPE	
3. TILE TYPE						
A. "S" (SPANISH) MISSION BARREL, ONE PIECE						
B. STRAIGHT BARREL MISSION, TWO PIECE						
C. TAPERED MISSION, TWO PIECE						
D. FLAT, ONE PIECE						
E. FLAT, INTERLOCKING, ONE PIECE	X		X		X	
F. FLAT PAN AND COVER, TWO PIECE						
4. TILE DESCRIPTION						
A. TEXTURE (specify or NA)	SMOOTH		STONE		TREE BARK	
B. FINISHES	NATURAL	CERAMIC GLAZE	NATURAL	CERAMIC GLAZE	NATURAL	CERAMIC GLAZE
1. NUMBER OF COLORS AVAILABLE	1	12	1	12	1	12
2. COLOR AVAILABLILITY (regional/national)	NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL
3. CUSTOM COLORS/BLENDS AVAILABLE (yes/no)	NO	YES	NO	YES	NO	YES
4. CUSTOM SHAPES AVILABLE (yes/no)			YES	YES	YES	YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES		YES		YES	
6. DIMENSIONS AND COVERAGE						
A. TILE DIMENSIONS (inches x inches)	11 X 8 3/4		11 X 8 3/4		13 3/4 X 8 5/8	
B. EXPOSED SIZE (inches x inches)	8 X 8		8 X 8		10 3/4 X 7 7/8	
C. PIECES PER ROOF SQUARE	225		225		173	
D. WEIGHT PER ROOF SQUARE (pounds)	900		900		762	
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS						
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	3:12		3:12		3:12	
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	40-LB FELT		40-LB FELT		40-LB FELT	
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot or NA)	< 3:12		< 3:12		< 3:12	
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	WINTERGUARD OR BUILT-UP ROOFING		WINTERGUARD OR BUILT-UP ROOFING		WINTERGUARD OR BUILT-UP ROOFING	
8. DECKS AND FASTENING RECOMMENDATIONS (fastening system in normal application or NA)						
A. METAL	STAINLESS STEEL SHEET METAL SCREWS		STAINLESS STEEL SHEET METAL SCREWS		STAINLESS STEEL SHEET METAL SCREWS	
B. PLYWOOD	11-GAUGE RING SHANK COPPER NAILS		11-GAUGE RING SHANK COPPER NAILS		11-GAUGE RING SHANK COPPER NAILS	
C. WOOD PLANK	11-GAUGE RING SHANK COPPER NAILS		11-GAUGE RING SHANK COPPER NAILS		11-GAUGE RING SHANK COPPER NAILS	
D. ORIENTED-STRAND BOARD	NA		NA		NA	
E. WAFERBOARD	NA		NA		NA	
F. GYPSUM/NAILABLE CONCRETE	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS		SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS		SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS	
G. OTHER (specify)	NA		NA		NA	
9. YEAR PRODUCT FIRST SOLD	1900		1900		1900	
10. NUMBER OF SQUARES INSTALLED	>250,000		>10,000		>250,000	
11. DISTRIBUTION						
A. DISTRIBUTORS (number handling product or no)	NO		NO		NO	
B. DIRECT (number of regional service locations or no)	58		58		58	
12. TECHNICAL INFORMATION						
COMPLIES WITH ASTM STANDARD C1167-90 *STANDARD SPECIFICATION FOR CLAY ROOF TILE* (check grade and type or enter none)						
GRADE 1 Providing resistance to severe frost action	X		X		X	
GRADE 2 Providing resistance to moderate frost action						
GRADE 3 Providing negligible resistance to any frost action						
TYPE I High-profile: rise-to-width ratio greater than 1:4						
TYPE II Low-profile: rise-to-width ratio equal to or less than 1:4						
TYPE III All other tiles, including flat	X		X		X	
13. ACCEPTED BY THE FOLLOWING CODES	ICBO (4872), UBC, METRO-DADE COUNTY		ICBO (4872), UBC, METRO-DADE COUNTY		ICBO (4872), UBC, METRO-DADE COUNTY	
14A. FOR SALES INFORMATION, CONTACT:	800/945-8453		800/945-8453		800/945-8453	
14B. FOR TECHNICAL INFORMATION, CONTACT:	800/945-8453		800/945-8453		800/945-8453	
15. SEE APPENDIX IF CHECKED	X		X		X	

NA=not applicable

Clay Tile

LUDOWICI-CELADON, INC.	LUDOWICI-CELADON, INC.	LUDOWICI-CELADON, INC.	LUDOWICI-CELADON, INC.	LUDOWICI-CELADON, INC.	LUDOWICI-CELADON, INC.
LIGHT WEIGHT INTERLOCKING	DESIGNER	CONOSERA	COFFEYVILLE ENGLISH	PROVINCIAL	GEORGIAN
X	X	X	X	X	X
SMOOTH OR SANDED	HAND-SPLIT SHAKE	SMOOTH	SMOOTH	FINE MACHINE SCORED	HAND ROUGHENED
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
1 NATIONAL / 12 NATIONAL	1 NATIONAL / 12 NATIONAL	1 NATIONAL / 12 NATIONAL	1 NATIONAL / 12 NATIONAL	1 NATIONAL / 12 NATIONAL	1 NATIONAL / 12 NATIONAL
NO / YES	NO / YES	NO / YES	NO / YES	NO / YES	NO / YES
YES / YES	YES / YES	YES / YES	YES / YES	YES / YES	YES / YES
YES	YES	YES	YES	YES	YES
13 3/4 X 8 5/8 10 3/4 X 7 7/8	14 X 9 11 X 8 1/4	13 X 8 3/4 10 3/4 X 7 3/4	13 1/4 X 8 3/4 10 1/8 X 7 3/4	15 X 7 6 1/2 X 7	15 X 8 6 1/2 X 8
173 782	158 800	173 1,000	182 810	317 1,230	276 1,465
3:12 40-LB FELT	3:12 40-LB FELT	3:12 40-LB FELT	3:12 40-LB FELT	5:12 40-LB FELT	5:12 40-LB FELT
< 3:12 WINTERGUARD OR BUILT-UP ROOFING	< 3:12 WINTERGUARD OR BUILT-UP ROOFING	< 3:12 WINTERGUARD OR BUILT-UP ROOFING	< 3:12 WINTERGUARD OR BUILT-UP ROOFING	< 5:12 WINTERGUARD OR BUILT-UP ROOFING	< 5:12 WINTERGUARD OR BUILT-UP ROOFING
STAINLESS STEEL SHEET METAL SCREWS 11-GAUGE RING SHANK COPPER NAILS 11-GAUGE RING SHANK COPPER NAILS NA	STAINLESS STEEL SHEET METAL SCREWS 11-GAUGE RING SHANK COPPER NAILS 11-GAUGE RING SHANK COPPER NAILS NA	STAINLESS STEEL SHEET METAL SCREWS 11-GAUGE RING SHANK COPPER NAILS 11-GAUGE RING SHANK COPPER NAILS NA	STAINLESS STEEL SHEET METAL SCREWS 11-GAUGE RING SHANK COPPER NAILS 11-GAUGE RING SHANK COPPER NAILS NA	STAINLESS STEEL SHEET METAL SCREWS 11-GAUGE RING SHANK COPPER NAILS 11-GAUGE RING SHANK COPPER NAILS NA	STAINLESS STEEL SHEET METAL SCREWS 11-GAUGE RING SHANK COPPER NAILS 11-GAUGE RING SHANK COPPER NAILS NA
NA	NA	NA	NA	NA	NA
SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS NA	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS NA	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS NA	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS NA	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS NA	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS NA
1900	1910	1880	1920	1920	1900
> 100,000	> 100,000	> 10,000	> 50,000	> 50,000	> 20,000
NO 58	NO 58	NO 58	NO 58	NO 58	NO 58
X	X	X	X	X	X
X	X	X	X	X	X
ICBO (4872), UBC, METRO-DADE COUNTY	ICBO (4872), UBC, METRO-DADE COUNTY	ICBO (4872), UBC, METRO-DADE COUNTY	ICBO (4872), UBC, METRO-DADE COUNTY	ICBO (4872), UBC, METRO-DADE COUNTY	ICBO (4872), UBC, METRO-DADE COUNTY
800/945-8453 800/945-8453	800/945-8453 800/945-8453	800/945-8453 800/945-8453	800/945-8453 800/945-8453	800/945-8453 800/945-8453	800/945-8453 800/945-8453
X	X	X	X	X	X

Clay Tile

1. COMPANY NAME	LUDOWICI-CELADON, INC.		LUDOWICI-CELADON, INC.		M.C.A CLAY TILE	
2. PRODUCT NAME	ANTIQUE		BRITTANY		ONE-PIECE "S"	
3. TILE TYPE						
A. "S" (SPANISH) MISSION BARREL, ONE PIECE					X	
B. STRAIGHT BARREL MISSION, TWO PIECE						
C. TAPERED MISSION, TWO PIECE						
D. FLAT, ONE PIECE	X		X			
E. FLAT, INTERLOCKING, ONE PIECE						
F. FLAT PAN AND COVER, TWO PIECE						
4. TILE DESCRIPTION						
A. TEXTURE (specify or NA)	HAND TREATED IRREGULAR		SANDED AND INDENTED		SMOOTH	
B. FINISHES	NATURAL	CERAMIC GLAZE	NATURAL	CERAMIC GLAZE	NATURAL	CERAMIC GLAZE
1. NUMBER OF COLORS AVAILABLE	1	3	1	3	15	12
2. COLOR AVAILABLILITY (regional/national)	NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL
3. CUSTOM COLORS/BLENDS AVAILABLE (yes/no)	NO	YES	NO	YES	YES	YES
4. CUSTOM SHAPES AVILABLE (yes/no)	YES	YES	YES	YES	YES	YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES		YES		YES	
6. DIMENSIONS AND COVERAGE						
A. TILE DIMENSIONS (inches x inches)	12 X 7		12 X 7		19 X 14	
B. EXPOSED SIZE (inches x inches)	5 X 7		5 X 7		16 X 12	
C. PIECES PER ROOF SQUARE	412		412		75	
D. WEIGHT PER ROOF SQUARE (pounds)	1,600		1,840		788	
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS						
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	5:12		5:12		3:12	
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	40-LB FELT		40-LB FELT		30-LB FELT	
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot or NA)	< 5:12		< 5:12		< 3:12	
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	WINTERGUARD OR BUILT-UP ROOFING		WINTERGUARD OR BUILT-UP ROOFING		2 30-LB FELTS MOPPED BETWEEN LAYERS	
8. DECKS AND FASTENING RECOMMENDATIONS (fastening system in normal application or NA)						
A. METAL	STAINLESS STEEL SHEET METAL SCREWS		STAINLESS STEEL SHEET METAL SCREWS		SCREW NAILS	
B. PLYWOOD	11-GAUGE RING SHANK COPPER NAILS		11-GAUGE RING SHANK COPPER NAILS		RING SHANK NAILS	
C. WOOD PLANK	11-GAUGE RING SHANK COPPER NAILS		11-GAUGE RING SHANK COPPER NAILS		SMOOTH SHANK NAILS	
D. ORIENTED-STRAND BOARD	NA		NA		NA	
E. WAFERBOARD	NA		NA		RING SHANK NAILS	
F. GYPSUM/NAILABLE CONCRETE	SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS		SPIRAL THREAD STAINLESS STEEL / SILICON BRONZE NAILS		STAINLESS STEEL/SILICON BRONZE SCREW SHANK NAILS	
G. OTHER (specify)	NA		NA		NA	
9. YEAR PRODUCT FIRST SOLD	1900		1900		1985	
10. NUMBER OF SQUARES INSTALLED	>5,000		>50,000		500,000	
11. DISTRIBUTION						
A. DISTRIBUTORS (number handling product or no)	NO		NO		170	
B. DIRECT (number of regional service locations or no)	58		58		NO	
12. TECHNICAL INFORMATION						
COMPLIES WITH ASTM STANDARD C1167-90 *STANDARD SPECIFICATION FOR CLAY ROOF TILE* (check grade and type or enter none)						
GRADE 1 Providing resistance to severe frost action	X		X		X	
GRADE 2 Providing resistance to moderate frost action						
GRADE 3 Providing negligible resistance to any frost action						
TYPE I High-profile: rise-to-width ratio greater than 1:4					X	
TYPE II Low-profile: rise-to-width ratio equal to or less than 1:4						
TYPE III All other tiles, including flat	X		X			
13. ACCEPTED BY THE FOLLOWING CODES	ICBO (4872), UBC, METRO-DADE COUNTY		ICBO (4872), UBC, METRO-DADE COUNTY		ICBO (4202)	
14A. FOR SALES INFORMATION, CONTACT:	800/945-8453		800/945-8453		714/736-9590	
14B. FOR TECHNICAL INFORMATION, CONTACT:	800/945-8453		800/945-8453		714/736-9590	
15. SEE APPENDIX IF CHECKED	X		X			

NA=not applicable

Clay Tile

M.C.A CLAY TILE	M.C.A CLAY TILE	M.C.A CLAY TILE	M.C.A CLAY TILE	SUPRADUR MANUFACTURING CORPORATION
STRAIGHT BARREL MISSION	CLASSIC TAPERED MISSION	ORIENTAL	RT-50 FLAT	TEGUSOL
X				X
	X			
			X	
SMOOTH	SMOOTH			
NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE	NATURAL / CERAMIC GLAZE
15 / CUSTOM	15 / CUSTOM	1 / 10	1 / 10	2 /
NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL / NATIONAL	NATIONAL /
YES / YES	YES / YES	YES / YES	YES / YES	YES /
NO / NO	NO / NO	NO / NO	NO / NO	YES /
YES	YES	YES	YES	YES
19 X 10	19 X 7 1/4 TAPERS TO 6 1/4	11 7/8 X 11 3/4	11 1/2 X 13	18 1/8 X 11 1/4
16 X 13.5	16 X 10	10 1/2 X 9 1/2	81/2 X 12	16 1/8 X 9 1/4
134	180	144	141	92
1,005	900	864	1,128	766
3:12 30-LB FELT	3:12 30-LB FELT	3:12 30-LB FELT	3:12 30-LB FELT	5:12 30-LB FELT
< 3:12 2 30-LB FELTS MOPPED BETWEEN LAYERS	< 3:12 2 30-LB FELTS MOPPED BETWEEN LAYERS	< 3:12 2 30-LB FELTS MOPPED BETWEEN LAYERS	< 3:12 2 30-LB FELTS MOPPED BETWEEN LAYERS	3:12 2 30-LB FELTS
SCREW NAILS	SCREW NAILS	SCREW NAILS	SCREW NAILS	
RING SHANK NAILS	RING SHANK NAILS	RING SHANK NAILS	RING SHANK NAILS	NAILS
SMOOTH SHANK NAILS	SMOOTH SHANK NAILS	SMOOTH SHANK NAILS	SMOOTH SHANK NAILS	NAILS
NA	NA	NA	NA	NA
RING SHANK NAILS	RING SHANK NAILS	RING SHANK NAILS	RING SHANK NAILS	NA
STAINLESS STEEL/SILICON BRONZE SCREW SHANK NAILS	STAINLESS STEEL/SILICON BRONZE SCREW SHANK NAILS	STAINLESS STEEL/SILICON BRONZE SCREW SHANK NAILS	STAINLESS STEEL/SILICON BRONZE SCREW SHANK NAILS	NAILS
NA	NA	NA	NA	NA
1985	1985	1902	1984	1987
500,000	< 10,000	>1 MILLION	100,000	3,000
170 NO	170 NO	170 NO	170 NO	500 + NO
X	X	X	X	X
X	X			
		X		
			X	
ICBO (4202)	ICBO (4202)	ICBO (4202)	UBC	
714/736-9590	714/736-9590	714/736-9590	714/736-9590	SALES SERVICE 800/223-1948
714/736-9590	714/736-9590	714/736-9590	714/736-9590	MARILYN MUELLER 800/223-1948
		X		

Concrete Tile

1. COMPANY NAME	BORAL INDUSTRIES	BORAL INDUSTRIES	BORAL INDUSTRIES	BORAL INDUSTRIES
2. PRODUCT NAME	LIFETILE GOLD RUSH SERIES ESPAÑA MISSION	LIFETILE 100 SERIES ESPAÑA MISSION	LIFETILE COLONIAL SLATE	LIFETILE CHATEAU
3. TILE TYPE				
A. "S" (SPANISH) MISSION BARREL	X	X		
B. DOUBLE "S"				
C. FLAT, SHINGLE- (SLATE-) SHAPE			X	
D. FLAT, SHAKE-SHAPE				
E. FLAT, RIBBED				X
4. TILE DESCRIPTION				
A. TEXTURED (yes/no)	NO	NO	NO	YES
B. COLOR PRODUCTION (surface or through-color)	SURFACE	SURFACE	SURFACE	SURFACE
C. NUMBER OF COLORS AVAILABLE				
D. COLOR AVAILABLILITY (regional/national)	NATIONAL	NATIONAL	NATIONAL	NATIONAL
E. CUSTOM COLORS/BLENDS AVAILABLE (yes/no)	YES	YES	YES	YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)				
6. DIMENSIONS AND COVERAGE				
A. TILE DIMENSIONS (inches x inches)	17 X 12 3/8	17 X 12 3/8	17 X 12 3/8	17 X 12 3/8
B. MINIMUM HEADLAP (inches)	3	3	3	3
C. EXPOSURE (inches)	14	14	14	14
D. PIECES PER ROOF SQUARE	89	89	89	93.5
E. WEIGHT PER ROOF SQUARE (pounds)	890	890	900	950
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	3:12	3:12	3:12	3:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	30-LB FELT	30-LB FELT	30-LB FELT	30-LB FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot or NA)	< 3:12	< 3:12	< 3:12	< 3:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS
8. RECOMMENDED DECKS AND FASTENING REQUIREMENTS				
A. DECK TYPES				
1. SOLID SHEATHING	X	X	X	X
2. SPACED SHEATHING				
B. DECK MATERIAL				
1. PLYWOOD/WOOD	X	X	X	X
2. ORIENTED STRAND BOARD	X	X	X	X
3. WAFERBOARD				
4. OTHER (specify)				
C. FASTENING REQUIREMENTS				
1. BATTENS REQUIRED [at given slope(s), no, or NA]				
a. SOLID SHEATHING	< 3:12 AND > 7:12	< 3:12 AND > 7:12	< 3:12 AND > 7:12	< 3:12 AND > 7:12
b. SPACED SHEATHING	NA	NA	NA	NA
2. NAILING REQUIREMENTS, FIELD TILES				
a. SOLID/SPACED SHEATHING WITH BATTENS [slope(s) or NA]				
not required	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12
each tile, alternate rows	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12
each tile	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER
b. SOLID/SPACED SHEATHING WITHOUT BATTENS [slope(s) or NA]				
not required				
each tile, alternate rows				
each tile	3:12 AND ABOVE	3:12 AND ABOVE	3:12 AND ABOVE	3:12 AND ABOVE
9. YEAR PRODUCT FIRST SOLD				
10. NUMBER OF SQUARES INSTALLED				
11. DISTRIBUTION				
A. DISTRIBUTORS (number handling product or no)	50	50	50	50
B. DIRECT (number of regional service locations or no)	NO	NO	NO	NO
12. ACCEPTED BY THE FOLLOWING CODES	ICBO (2856)	ICBO (2856)	ICBO (2856)	ICBO (2856)
13A. FOR SALES INFORMATION, CONTACT:	B. SESULKA 714/888-7077	B. SESULKA 714/888-7077	B. SESULKA 714/888-7077	B. SESULKA 714/888-7077
13B. FOR TECHNICAL INFORMATION, CONTACT:	G. WOODALL 714/888-7077	G. WOODALL 714/888-7077	G. WOODALL 714/888-7077	G. WOODALL 714/888-7077
14. SEE APPENDIX IF CHECKED				

NA=not applicable

Concrete Tile

BORAL INDUSTRIES	BORAL INDUSTRIES	BORAL INDUSTRIES	BORAL INDUSTRIES	BORAL INDUSTRIES	BORAL INDUSTRIES	BORAL INDUSTRIES
LIFETILE SUPERSHAKE	LIFETILE CLASSIC CAPRI	LIFETILE SIERRA SHAKE	LIFETILE BLENDED MISSION	LIFETILE BLENDED SHIMGLE	LIFETILE SANTA FE MISSION	LIFETILE SANTA FE SHINGLE
					X	
	X		X			
				X		X
X		X				
YES THROUGH-COLOR	NO THROUGH-COLOR	YES THROUGH-COLOR	NO THROUGH-COLOR	YES THROUGH-COLOR	NO THROUGH-COLOR	YES THROUGH-COLOR
NATIONAL YES	NATIONAL YES	NATIONAL YES	NATIONAL YES	NATIONAL YES	NATIONAL YES	NATIONAL YES
17 X 12 3/8	17 X 12 3/8	17 X 12 3/8	17 X 12 3/8	17 X 12 3/8	17 X 12 3/8	17 X 12 3/8
3	3	3	3	3	3	3
14	14	14	14	14	14	14
93.5	93.5	93.5	93.5	93.5	89	89
950	950	950	950	950	890	890
3:12 30-LB FELT	3:12 30-LB FELT	3:12 30-LB FELT	3:12 30-LB FELT	3:12 30-LB FELT	3:12 30-LB FELT	3:12 30-LB FELT
< 3:12 2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	< 3:12 2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	< 3:12 2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	< 3:12 2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	< 3:12 2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	< 3:12 2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	< 3:12 2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
< 3:12 AND > 7:12 NA	< 3:12 AND > 7:12 NA	< 3:12 AND > 7:12 NA	< 3:12 AND > 7:12 NA	< 3:12 AND > 7:12 NA	< 3:12 AND > 7:12 NA	< 3:12 AND > 7:12 NA
3:12 TO 5:12 > 5:12 TO 12:12 12:12 AND OVER	3:12 TO 5:12 > 5:12 TO 12:12 12:12 AND OVER	3:12 TO 5:12 > 5:12 TO 12:12 12:12 AND OVER	3:12 TO 5:12 > 5:12 TO 12:12 12:12 AND OVER	3:12 TO 5:12 > 5:12 TO 12:12 12:12 AND OVER	3:12 TO 5:12 > 5:12 TO 12:12 12:12 AND OVER	3:12 TO 5:12 > 5:12 TO 12:12 12:12 AND OVER
3:12 AND ABOVE	3:12 AND ABOVE	3:12 AND ABOVE	3:12 AND ABOVE	3:12 AND ABOVE	3:12 AND ABOVE	3:12 AND ABOVE
50	50	50	50	50	50	50
NO	NO	NO	NO	NO	NO	NO
ICBO (2856)	ICBO (2856)	ICBO (2856)	ICBO (2856)	ICBO (2856)	ICBO (2856)	ICBO (2856)
B. SESULKA 714/888-7077 G. WOODALL 714/888-7077	B. SESULKA 714/888-7077 G. WOODALL 714/888-7077	B. SESULKA 714/888-7077 G. WOODALL 714/888-7077	B. SESULKA 714/888-7077 G. WOODALL 714/888-7077	B. SESULKA 714/888-7077 G. WOODALL 714/888-7077	B. SESULKA 714/888-7077 G. WOODALL 714/888-7077	B. SESULKA 714/888-7077 G. WOODALL 714/888-7077

Concrete Tile

1. COMPANY NAME	BORAL INDUSTRIES	BORAL INDUSTRIES	BORAL INDUSTRIES	BORAL INDUSTRIES
2. PRODUCT NAME	LIFETILE CLASSIC MISSION	LIFETILE TAOS MISSION	LIFETILE TAOS SHINGLE	LIFETILE COUNTRY SLATE
3. TILE TYPE				
A. "S" (SPANISH) MISSION BARREL	X	X		
B. DOUBLE "S"				
C. FLAT, SHINGLE- (SLATE-) SHAPE			X	X
D. FLAT, SHAKE-SHAPE				
E. FLAT, RIBBED				
4. TILE DESCRIPTION				
A. TEXTURED (yes/no)	YES	YES	YES	YES
B. COLOR PRODUCTION (surface or through-color)	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR
C. NUMBER OF COLORS AVAILABLE				
D. COLOR AVAILABILITY (regional/national)	NATIONAL	NATIONAL	NATIONAL	NATIONAL
E. CUSTOM COLORS/BLENDS AVAILABLE (yes/no)	YES	YES	YES	YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)				
6. DIMENSIONS AND COVERAGE				
A. TILE DIMENSIONS (inches x inches)	17 X 12 3/8	17 X 12 3/8	17 X 12 3/8	17 X 12 3/8
B. MINIMUM HEADLAP (inches)	3	3	3	3
C. EXPOSURE (inches)	14	14	14	14
D. PIECES PER ROOF SQUARE	89	89	89	93.5
E. WEIGHT PER ROOF SQUARE (pounds)	890	890	890	1,035
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	3:12	3:12	3:12	3:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	30-LB FELT	30-LB FELT	30-LB FELT	30-LB FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot or NA)	< 3:12	< 3:12	< 3:12	< 3:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS
8. RECOMMENDED DECKS AND FASTENING REQUIREMENTS				
A. DECK TYPES				
1. SOLID SHEATHING	X	X	X	X
2. SPACED SHEATHING				
B. DECK MATERIAL				
1. PLYWOOD/WOOD	X	X	X	X
2. ORIENTED STRAND BOARD	X	X	X	X
3. WAFERBOARD				
4. OTHER (specify)				
C. FASTENING REQUIREMENTS				
1. BATTENS REQUIRED [at given slope(s), no, or NA]				
a. SOLID SHEATHING	< 3:12 AND > 7:12	< 3:12 AND > 7:12	< 3:12 AND > 7:12	< 3:12 AND > 7:12
b. SPACED SHEATHING	NA	NA	NA	NA
2. NAILING REQUIREMENTS, FIELD TILES				
a. SOLID/SPACED SHEATHING WITH BATTENS [slope(s) or NA]				
not required	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12
each tile, alternate rows	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12
each tile	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER
b. SOLID/SPACED SHEATHING WITHOUT BATTENS [slope(s) or NA]				
not required				
each tile, alternate rows				
each tile	3:12 AND ABOVE	3:12 AND ABOVE	3:12 AND ABOVE	3:12 AND ABOVE
9. YEAR PRODUCT FIRST SOLD				
10. NUMBER OF SQUARES INSTALLED				
11. DISTRIBUTION				
A. DISTRIBUTORS (number handling product or no)	50	50	50	50
B. DIRECT (number of regional service locations or no)	NO	NO	NO	NO
12. ACCEPTED BY THE FOLLOWING CODES	ICBO (2856)	ICBO (2856)	ICBO (2856)	ICBO (2856)
13A. FOR SALES INFORMATION, CONTACT:	B. SESULKA 714/888-7077	B. SESULKA 714/888-7077	B. SESULKA 714/888-7077	B. SESULKA 714/888-7077
13B. FOR TECHNICAL INFORMATION, CONTACT:	G. WOODALL 714/888-7077	G. WOODALL 714/888-7077	G. WOODALL 714/888-7077	G. WOODALL 714/888-7077
14. SEE APPENDIX IF CHECKED				

NA=not applicable

Concrete Tile

BORAL INDUSTRIES	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.
LIFETILE COUNTRY SHINGLE	MISSION "S"	MISSION "S" DESERT	VILLA	VILLA	PREMIUM DURALITE VILLA	SHAKE
	X	X				
			X	X	X	
X						
						X
	NO	NO	NO	NO	NO	YES
THROUGH-COLOR	SURFACE	THROUGH-COLOR	SURFACE	THROUGH-COLOR	THROUGH-COLOR	SURFACE
	60	30	30	18	6	12
NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL
YES	YES	YES	YES	YES	YES	YES
	YES	YES	YES	YES	YES	YES
17 X 12 3/8	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13
3	3	3	3	3	3	3
14	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2
93.5	90	90	90	90	90	90
1,035	900	900	800	800	540	900
3:12	3:12	3:12	3:12	3:12	3:12	3:12
30-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT
< 3:12	< 3:12	< 3:12	< 3:12	< 3:12	< 3:12	< 3:12
2 15-LB FELTS HOT MOPPED, VERTICAL COUNTER BATTENS	2 30-LB FELTS NAILED, SOLID MOPPED	2 30-LB FELTS NAILED, SOLID MOPPED	2 30-LB FELTS NAILED, SOLID MOPPED	2 30-LB FELTS NAILED, SOLID MOPPED	2 30-LB FELTS NAILED, SOLID MOPPED	2 30-LB FELTS NAILED, SOLID MOPPED
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
< 3:12 AND > 7:12	< 3:12 AND > 7:12	< 3:12 & > 7:12	< 3:12 & > 7:12	< 3:12 & > 7:12	< 3:12 & > 7:12	< 3:12 & > 7:12
NA	NA	NA	NA	NA	NA	NA
3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12		3:12 TO 5:12
> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12		> 5:12 TO 12:12
12:12 AND OVER	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER	ALL	12:12 AND OVER
3:12 AND ABOVE	ALL	ALL	ALL	ALL	ALL	ALL
	1982	1982	1968	1968		
	> 3 MILLION	> 1 MILLION	> 2 MILLION	> 1 MILLION	> 200,000	> 2,000,000
50						
NO	8	8	10	10	2	10
ICBO (2656)	ICBO, SBCCI, BOCA, METRO-DADE COUNTY	ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY	ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY	ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY	ICBO (2093)	ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY
B. SESULKA 714/888-7077 G. WOODALL 714/888-7077	D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366	D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366	D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366	D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366	P. COHEN 800/2-REROOF S. LATERAQUE 800/284-3875	D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366

Concrete Tile

1. COMPANY NAME	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.
2. PRODUCT NAME	SHAKE	PREMIUM DURALITE SHAKE	CLASSIC 100	CLASSIC 100
3. TILE TYPE				
A. "S" (SPANISH) MISSION BARREL				
B. DOUBLE "S"				
C. FLAT, SHINGLE- (SLATE-) SHAPE				
D. FLAT, SHAKE-SHAPE				
E. FLAT, RIBBED	X	X	X	X
4. TILE DESCRIPTION				
A. TEXTURED (yes/no)	YES	YES	NO	NO
B. COLOR PRODUCTION (surface or through-color)	THROUGH-COLOR	THROUGH-COLOR	SURFACE	THROUGH-COLOR
C. NUMBER OF COLORS AVAILABLE	15	3	8	6
D. COLOR AVAILABLILITY (regional/national)	NATIONAL	NATIONAL	NATIONAL	NATIONAL
E. CUSTOM COLORS/BLENDS AVAILABLE (yes/no)	YES	YES	NO	NO
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES	YES	YES	YES
6. DIMENSIONS AND COVERAGE				
A. TILE DIMENSIONS (inches x inches)	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13
B. MINIMUM HEADLAP (inches)	3	3	3	3
C. EXPOSURE (inches)	13 1/2	13 1/2	13 1/2	13 1/2
D. PIECES PER ROOF SQUARE	90	90	90	90
E. WEIGHT PER ROOF SQUARE (pounds)	900	900	900	900
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	3:12	3:12	3:12	3:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot or NA)	< 3:12	< 3:12	< 3:12	< 3:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	2 30-LB FELTS NAILED, SOLID MOPPED	2 30-LB FELTS NAILED, SOLID MOPPED	2 30-LB FELTS NAILED, SOLID MOPPED	2 30-LB FELTS NAILED, SOLID MOPPED
8. RECOMMENDED DECKS AND FASTENING REQUIREMENTS				
A. DECK TYPES				
1. SOLID SHEATHING	X	X	X	X
2. SPACED SHEATHING				
B. DECK MATERIAL				
1. PLYWOOD/WOOD	X	X	X	X
2. ORIENTED STRAND BOARD	X	X	X	X
3. WAFERBOARD				
4. OTHER (specify)				
C. FASTENING REQUIREMENTS				
1. BATTENS REQUIRED [at given slope(s), no, or NA]				
a. SOLID SHEATHING	< 3:12 & > 7:12	< 3:12 & > 7:12	< 3:12 & > 7:12	< 3:12 & > 7:12
b. SPACED SHEATHING	NA	NA	NA	NA
2. NAILING REQUIREMENTS, FIELD TILES				
a. SOLID/SPACED SHEATHING WITH BATTENS [slope(s) or NA]				
not required	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12
each tile, alternate rows	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12
each tile	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER
b. SOLID/SPACED SHEATHING WITHOUT BATTENS [slope(s) or NA]				
not required				
each tile, alternate rows				
each tile	ALL	ALL	ALL	ALL
9. YEAR PRODUCT FIRST SOLD				
10. NUMBER OF SQUARES INSTALLED	> 2,000,000	> 200,000	> 200,000	> 200,000
11. DISTRIBUTION				
A. DISTRIBUTORS (number handling product or no)				
B. DIRECT (number of regional service locations or no)	10	2	1	1
12. ACCEPTED BY THE FOLLOWING CODES	ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY	ICBO (2093)	ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY	ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY
13A. FOR SALES INFORMATION, CONTACT:	D. HUISKEN 714/750-5366	P. COHEN 800/2-REROOF	D. HUISKEN 714/750-5366	D. HUISKEN 714/750-5366
13B. FOR TECHNICAL INFORMATION, CONTACT:	D. HUISKEN 714/750-5366	S. LATERAQUE 800/284-3875	D. HUISKEN 714/750-5366	D. HUISKEN 714/750-5366
14. SEE APPENDIX IF CHECKED				

NA=not applicable

Concrete Tile

MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.
SLATE	ROMA	ROMA	SLATE	HOMESTEAD	HOMESTEAD	SPLIT SHAKE
	X	X				
X			X			
				X	X	X
NO	NO	NO	NO	YES	YES	YES
SURFACE	SURFACE	THROUGH-COLOR	THROUGH-COLOR	SURFACE	THROUGH-COLOR	THROUGH-COLOR
5	12	15	5	12	36	5
NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL	NATIONAL	REGIONAL
YES	YES	NO	NO	YES	YES	YES
YES	YES	YES	YES	YES	YES	YES
16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13
3	3	3	3	3	3	3
13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2	13 1/2
90	90	90	90	90	90	90
900	800	800	800	900	900	900
3:12	3:12	3:12	3:12	3:12	3:12	3:12
30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT	30- OR 40-LB FELT
< 3:12	< 3:12	< 3:12	< 3:12	< 3:12	< 3:12	< 3:12
2 30-LB FELTS	2 30-LB FELTS	2 30-LB FELTS	2 30-LB FELTS	2 30-LB FELTS	2 30-LB FELTS	2 30-LB FELTS
NAILED, SOLID	NAILED, SOLID	NAILED, SOLID	NAILED, SOLID	NAILED, SOLID	NAILED, SOLID	NAILED, SOLID
MOPPED	MOPPED	MOPPED	MOPPED	MOPPED	MOPPED	MOPPED
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
< 3:12 & > 7:12	< 3:12 & > 7:12	< 3:12 & > 7:12	< 3:12 & > 7:12	< 3:12 & > 7:12	< 3:12 & > 7:12	< 3:12 & > 7:12
NA	NA	NA	NA	NA	NA	NA
3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12	3:12 TO 5:12
> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12	> 5:12 TO 12:12
12:12 AND OVER	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER	12:12 AND OVER
ALL	ALL	ALL	ALL	ALL	ALL	ALL
	1965	1985	1972	1978	1978	1980
> 500,000	> 200,000	> 200,000	> 800,000	> 1.5 MILLION	> 1.5 MILLION	> 100,000
10	3	3	10	10	10	3
ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY	ICBO (2093)	ICBO (2093)	ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY	ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY	ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY	ICBO (2093), SBCCI, BOCA, METRO-DADE COUNTY
D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366	D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366	D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366	D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366	D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366	D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366	D. HUISKEN 714/750-5366 D. HUISKEN 714/750-5366

Concrete Tile

1. COMPANY NAME	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.
2. PRODUCT NAME	VANGUARD ROLL	VANGUARD FLAT	VANGUARD FLAT	BERMUDA FLAT
3. TILE TYPE				
A. "S" (SPANISH) MISSION BARREL				
B. DOUBLE "S"	X			
C. FLAT, SHINGLE- (SLATE-) SHAPE		X		
D. FLAT, SHAKE-SHAPE			X	X
E. FLAT, RIBBED				
4. TILE DESCRIPTION				
A. TEXTURED (yes/no)	YES	YES	NO	YES
B. COLOR PRODUCTION (surface or through-color)	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR
C. NUMBER OF COLORS AVAILABLE	17	10	10	50
D. COLOR AVAILABLILITY (regional/national)	REGIONAL	REGIONAL	REGIONAL	REGIONAL
E. CUSTOM COLORS/BLENDS AVAILABLE (yes/no)	YES	NO	NO	YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES	YES	YES	YES
6. DIMENSIONS AND COVERAGE				
A. TILE DIMENSIONS (inches x inches)	16 1/2 X 13	16 1/2 X 13	16 1/2 X 13	16 X 9
B. MINIMUM HEADLAP (inches)	3			2
C. EXPOSURE (inches)	14			14
D. PIECES PER ROOF SQUARE	90			120
E. WEIGHT PER ROOF SQUARE (pounds)	810	990	990	960
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	43-LB BASE SHEET	43-LB BASE SHEET	43-LB BASE SHEET	30-LB FELT + 90-LB FELT, HOT MOPPED
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot or NA)	2:12	2:12	2:12	2:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	30-LB FELT + 15-LB FELT + 90-LB FELT, ALL HOT MOPPED	30-LB FELT + 15-LB FELT + 90-LB FELT, ALL HOT MOPPED	30-LB FELT + 15-LB FELT + 90-LB FELT, ALL HOT MOPPED	30-LB FELT + 15-LB FELT + 90-LB FELT, ALL HOT MOPPED
8. RECOMMENDED DECKS AND FASTENING REQUIREMENTS				
A. DECK TYPES				
1. SOLID SHEATHING	X	X	X	X
2. SPACED SHEATHING				
B. DECK MATERIAL				
1. PLYWOOD/WOOD	X	X	X	X
2. ORIENTED STRAND BOARD				
3. WAFERBOARD				
4. OTHER (specify)				
C. FASTENING REQUIREMENTS				
1. BATTENS REQUIRED [at given slope(s), no, or NA]				
a. SOLID SHEATHING	> 7:12	> 7:12	> 7:12	> 7:12
b. SPACED SHEATHING	NA			
2. NAILING REQUIREMENTS, FIELD TILES				
a. SOLID/SPACED SHEATHING WITH BATTENS [slope(s) or NA]				
not required				
each tile, alternate rows				
each tile	ALL	ALL	ALL	NA
b. SOLID/SPACED SHEATHING WITHOUT BATTENS [slope(s) or NA]				
not required				
each tile, alternate rows				
each tile	ALL	ALL	ALL	NA
9. YEAR PRODUCT FIRST SOLD	1988	1988	1988	1958
10. NUMBER OF SQUARES INSTALLED	50,000	15,000	15,000	> 3 MILLION
11. DISTRIBUTION				
A. DISTRIBUTORS (number handling product or no)				
B. DIRECT (number of regional service locations or no)	4	4	4	4
12. ACCEPTED BY THE FOLLOWING CODES	SBCCI METRO-DADE COUNTY	SBCCI METRO-DADE COUNTY	SBCCI METRO-DADE COUNTY	SBCCI METRO-DADE COUNTY
13A. FOR SALES INFORMATION, CONTACT:	T. KORDAK 407/338-8200	T. KORDAK 407/338-8200	T. KORDAK 407/338-8200	T. KORDAK 407/338-8200
13B. FOR TECHNICAL INFORMATION, CONTACT:	B. FERRANTE 407/338-8200	B. FERRANTE 407/338-8200	B. FERRANTE 407/338-8200	B. FERRANTE 407/338-8200
14. SEE APPENDIX IF CHECKED				X

NA=not applicable

Concrete Tile

MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	MONIER ROOF TILE INC.	WESTILE	WESTILE
BERMUDA FLAT	BARREL	BARREL	SPANISH "S"	SPANISH "S"	SERIES #1100 SHAKE	SERIES #1000 SLATE
	X	X	X	X		
X					X	X
YES	YES	NO	NO	YES	YES	NO
SURFACE	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR	THROUGH-COLOR
1	20	20	50	50	2	6
REGIONAL	REGIONAL	REGIONAL	REGIONAL	REGIONAL	NATIONAL	NATIONAL
	YES		YES	YES	YES	YES
YES	YES		YES	YES	YES	YES
16 X 9	18 X 9	18 X 19	16 X 9	16 X 9	13 X 16 1/2	13 X 16 1/2
2	2 1/2	2 1/2	2 1/2	2 1/2	3	3
14	15 1/2	15 1/2	13 1/2	13 1/2	13 1/2	13 1/2
120	140	140	105	105	92	92
960	1,050	1,050	890	890	1,050	1,050
4:12	4:12	4:12	4:12	4:12	3:12	3:12
30-LB FELT + 90-LB FELT, HOT MOPPED	30-LB FELT + 90-LB FELT, HOT MOPPED	30-LB FELT + 90-LB FELT, HOT MOPPED	43-LB BASE SHEET	43-LB BASE SHEET	30- OR 43-LB FELT	30- OR 43-LB FELT
2:12	2:12	2:12	2:12	2:12	< 3:12	< 3:12
30-LB FELT + 15-LB FELT + 90-LB FELT, ALL HOT MOPPED	30-LB FELT + 15-LB FELT + 90-LB FELT, ALL HOT MOPPED	30-LB FELT + 15-LB FELT + 90-LB FELT, ALL HOT MOPPED	30-LB FELT + 15-LB FELT + 90-LB FELT, ALL HOT MOPPED	30-LB FELT + 15-LB FELT + 90-LB FELT, ALL HOT MOPPED	BITHUTHAYNE	BITHUTHAYNE
X	X	X	X	X	X	X
X	X	X	X	X	X	X
> 7:12	> 7:12	> 7:12	> 7:12	> 7:12	< 3:12 TO 24:12	< 3:12 TO 24:12
					NO	NO
					3:12 TO 5:12	3:12 TO 5:12
					> 5:12 TO 12:12	> 5:12 TO 12:12
NA	NA	NA	ALL	ALL	12:12 AND OVER	12:12 AND OVER
					NA	NA
					NA	NA
NA	NA	NA	ALL	ALL	NA	NA
1958	1958	1958	1965	1965	1982	1982
> 1 MILLION	> 1 MILLION	> 1 MILLION	> 1 MILLION	> 1 MILLION	150,000	150,000
					190	190
4	4	4	4	4	NO	NO
SBCCI METRO-DADE COUNTY	SBCCI METRO-DADE COUNTY	SBCCI METRO-DADE COUNTY	SBCCI METRO-DADE COUNTY	SBCCI METRO-DADE COUNTY	ICBO (3984)	ICBO (3984)
T. KORDAK 407/336-8200 B. FERRANTE 407/336-8200	T. KORDAK 407/336-8200 B. FERRANTE 407/336-8200	T. KORDAK 407/336-8200 B. FERRANTE 407/336-8200	T. KORDAK 407/336-8200 B. FERRANTE 407/336-8200	T. KORDAK 407/336-8200 B. FERRANTE 407/336-8200	C. WELCH 800/433-8453 D. JUNE 800/433-8453	C. WELCH 800/433-8453 D. JUNE 800/433-8453
X	X	X				

Concrete Tile

1. COMPANY NAME	WESTILE
2. PRODUCT NAME	SERIES #2000 DOUBLE ROMAN
3. TILE TYPE	
A. "S" (SPANISH) MISSION BARREL	
B. DOUBLE "S"	X
C. FLAT, SHINGLE- (SLATE-) SHAPE	
D. FLAT, SHAKE-SHAPE	
E. FLAT, RIBBED	
4. TILE DESCRIPTION	
A. TEXTURED (yes/no)	NO
B. COLOR PRODUCTION (surface or through-color)	THROUGH-COLOR
C. NUMBER OF COLORS AVAILABLE	6
D. COLOR AVAILABLILITY (regional/national)	NATIONAL
E. CUSTOM COLORS/BLENDS AVAILABLE (yes/no)	YES
5. ACCESSORY TILES AVAILABLE [e.g., ridge, hip, starter] (yes/no)	YES
6. DIMENSIONS AND COVERAGE	
A. TILE DIMENSIONS (inches x inches)	13 X 16 1/2
B. MINIMUM HEADLAP (inches)	3
C. EXPOSURE (inches)	13 1/2
D. PIECES PER ROOF SQUARE	92
E. WEIGHT PER ROOF SQUARE (pounds)	920
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS	
A. MINIMUM SLOPE RECOMMENDED FOR NORMAL APPLICATION (inches per foot)	3:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	30- OR 43-LB FELT
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot or NA)	< 3:12
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION	BITHUTHAYNE
8. RECOMMENDED DECKS AND FASTENING REQUIREMENTS	
A. DECK TYPES	
1. SOLID SHEATHING	X
2. SPACED SHEATHING	
B. DECK MATERIAL	
1. PLYWOOD/WOOD	X
2. ORIENTED STRAND BOARD	
3. WAFERBOARD	
4. OTHER (specify)	
C. FASTENING REQUIREMENTS	
1. BATTENS REQUIRED [at given slope(s), no, or NA]	
a. SOLID SHEATHING	< 3:12 TO 24:12
b. SPACED SHEATHING	NO
2. NAILING REQUIREMENTS, FIELD TILES	
a. SOLID/SPACED SHEATHING WITH BATTENS [slope(s) or NA]	
not required	3:12 TO 5:12
each tile, alternate rows	> 5:12 TO 12:12
each tile	12:12 AND OVER
b. SOLID/SPACED SHEATHING WITHOUT BATTENS [slope(s) or NA]	
not required	NA
each tile, alternate rows	NA
each tile	NA
9. YEAR PRODUCT FIRST SOLD	1982
10. NUMBER OF SQUARES INSTALLED	100,000
11. DISTRIBUTION	
A. DISTRIBUTORS (number handling product or no)	190
B. DIRECT (number of regional service locations or no)	NO
12. ACCEPTED BY THE FOLLOWING CODES	ICBO (3984)
13A. FOR SALES INFORMATION, CONTACT:	C. WELCH 800/433-8453
13B. FOR TECHNICAL INFORMATION, CONTACT:	D. JUNE 800/433-8453
14. SEE APPENDIX IF CHECKED	

NA=not applicable

Metal Roof Components

Metal Roof Components

1. COMPANY NAME	ALCOA BUILDING PRODUCTS		ALCOA BUILDING PRODUCTS	
2. PRODUCT NAME	HOMECREST ALUMINUM ROOFING		COUNTY CEDAR ALUMINUM SHAKES	
3. CONFIGURATION				
3.1 STYLE				
A. SIMULATED SHINGLE (specific type if applicable)				
B. SIMULATED SHAKE (specific type if applicable)			WOOD	
C. SIMULATED SLATE (specific type if applicable)				
D. SIMULATED TILE (specific type if applicable)	FLAT			
E. OTHER (specific type)				
3.2 COMPONENT TYPE AND SIZE				
A. PANEL [width (in.), maximum length (ft.)]				
B. INDIVIDUAL (dimensions: inches x inches)	9 X 50		12 X 48	
3.3 MATERIALS, THICKNESSES, AND FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
GALVANIZED STEEL (ga.)				
STAINLESS STEEL (ga.)				
GALVALUME (ga.)				
ALUMINIZED STEEL (ga.)				
ALUMINUM (in.)	0.019	ALUMALURE 2000	0.019	ALUMALURE 2000
COPPER (oz.)				
TERNE METAL (ga.)				
ZINC (ga.)				
4. SYSTEMS RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (in. per ft.)	3:12		4:12	
B. MINIMUM SLOPE RECOMMENDED IN SPECIAL APPLICATION (in. per ft.)	2:12		3:12	
C. DECK TYPES				
SOLID DECK, WOOD	X		X	
SPACED SHEATHING, WOOD				
DECKING NOT REQUIRED				
D. UNDERLAYMENT RECOMMENDED (type or NA)	30-LB FELT		30-LB FELT	
5. PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)				
5.1 INTERLOCKING METHOD, HEIGHT, AND SEALANT	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
A. OVERLAPPED				
B. INTERLOCKED				
C. SLIP LOCKED				
D. SNAP TOGETHER				
5.2 FASTENING METHOD				
A. THROUGH-FASTENED (exposed or concealed, specify)				
B. CLIP (exposed or concealed, specify)				
6. INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)				
6.1 DIMENSIONS				
A. WEIGHT PER ROOF SQUARE (pounds)	45		50	
B. EXPOSURE (inches)	9		12	
C. COVERAGE (approx. number of pieces per square at listed exposure)	32		24	
6.2 INSTALLATION PROCESSING				
A. 1. THROUGH-FASTENED (exposed or concealed, specify)	CONCEALED		CONCEALED	
2. KIND(S) OF FASTENER REQUIRED (nails, staples, screws, or NA)	NAILS		NAILS	
3. NUMBER OF FASTENERS PER PIECE (number or NA)	4		4	
B. SEAM SNAP-IN OR INTERLOCK (specify or NA)	INTERLOCK		INTERLOCK	
C. ADHESIVE/SEALANT REQUIRED (yes/no)	NO		NO	
D. SUPPORT BATTENS REQUIRED (yes/no)	NO		NO	
7. MANUFACTURER/PRODUCT DATA				
A. YEAR PRODUCT FIRST SOLD	1990		1972	
B. NUMBER OF SQUARES INSTALLED				
C. METHOD OF DISTRIBUTION (distributors, direct)	DISTRIBUTORS, DIRECT		DISTRIBUTORS, DIRECT	
D. NUMBER OF REGIONAL SERVICE LOCATIONS				
E. LICENSED APPLICATOR AGREEMENT (yes/no)	YES		YES	
FOR SALES INFORMATION, CONTACT:	E.M. REED	800/621-7466	E.M. REED	800/621-7466
FOR TECHNICAL INFORMATION, CONTACT:	D. VERBOFSKY	800/621-7466	D. VERBOFSKY	800/621-7466
8. ASTM E331 WATER INFILTRATION TEST RESULTS	NONE		NONE	
9. ASTM E283 AIR INFILTRATION TEST RESULTS	NONE		NONE	
10. UL FIRE RATINGS FOR ANY SPECIFICATION (per UL Standard 790)	CLASS A		CLASS A	
11. FM/UL WIND UPLIFT RATING FOR ANY SPECIFICATION	NONE		NONE	
12. SEE APPENDIX IF CHECKED				

NA=not applicable

Metal Roof Components

ALLIED ROOF SYSTEMS INC.		ATAS ALUMINUM CORPORATION		ATAS ALUMINUM CORPORATION	
SSC		PC SNAP-ON SEAM/BATTEN		TECHO TILE	
				SPANISH	
SNAP-ON BATTEN STANDING SEAM		SNAP-ON SEAM/SNAP-ON BATTEN STANDING SEAM			
12, 16, 18, 20, 24 X 50		12 1/2, 15 1/4 X 65		39 X 13	
THICKNESS	FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
22, 26	KYNAR 500, SILICON POLYESTER, MILL	24	KYNAR 500	24	KYNAR 500
22, 26	KYNAR 500, SILICON POLYESTER				
22, 26	KYNAR 500, SILICON POLYESTER				
22, 26	KYNAR 500, SILICON POLYESTER				
0.19, 0.32, 0.40	KYNAR 500, SILICON POLYESTER	0.032, 0.040	KYNAR 500	0.032	KYNAR
16, 20	MILL				
22, 26	MILL				
3:12		3:12		3:12	
		3:12		3:12	
X		X		X	
X				X	
X					
30-LB FELT OR EQUIVALENT		30-LB FELT		30-LB FELT	
HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none
				2	N
1	F, E				
		1 1/4	N		
CONCEALED		CONCEALED		EXPOSED	
1980		1979		1992	
1 MILLION +		> 100,000		> 100	
DISTRIBUTORS, DIRECT		DISTRIBUTORS		DISTRIBUTORS	
1		2		2	
YES		NO		NO	
D. PLATT 205/591-5105 M. WEED 205/591-5105		J. BUSH 215/395-8445 J. BUSH 215/395-8445		J. BUSH 215/395-8445 J. BUSH 215/395-8445	
		NONE		NONE	
		NONE		NONE	
CLASS A		CLASS A		NONE	
		UL-90		NONE	
		X		X	

Metal Roof Components

1. COMPANY NAME	ATAS ALUMINUM CORPORATION		ATAS ALUMINUM CORPORATION	
2. PRODUCT NAME	DUTCH SEAM MRD		MONARCH ROOF MRB	
3. CONFIGURATION				
3.1 STYLE				
A. SIMULATED SHINGLE (specific type if applicable)				
B. SIMULATED SHAKE (specific type if applicable)				
C. SIMULATED SLATE (specific type if applicable)				
D. SIMULATED TILE (specific type if applicable)				
E. OTHER (specific type)	BATTEN SEAM STANDING SEAM		BATTEN SEAM STANDING SEAM	
3.2 COMPONENT TYPE AND SIZE				
A. PANEL [width (in.), maximum length (ft.)]	11, 15, 19 X 65		12, 16, X 70	
B. INDIVIDUAL (dimensions: inches x inches)				
3.3 MATERIALS, THICKNESSES, AND FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
GALVANIZED STEEL (ga.)	24	KYNAR 500	24	KYNAR 500
STAINLESS STEEL (ga.)				
GALVALUME (ga.)				
ALUMINIZED STEEL (ga.)				
ALUMINUM (in.)	0.032, 0.040	KYNAR	0.032	KYNAR
COPPER (oz.)				
TERNE METAL (ga.)				
ZINC (ga.)				
4. SYSTEMS RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (in. per ft.)	2:12		2:12	
B. MINIMUM SLOPE RECOMMENDED IN SPECIAL APPLICATION (in. per ft.)	2:12		2:12	
C. DECK TYPES				
SOLID DECK, WOOD	X		X	
SPACED SHEATHING, WOOD	X		X	
DECKING NOT REQUIRED	X		X	
D. UNDERLAYMENT RECOMMENDED (type or NA)	30-LB FELT		30-LB FELT	
5. PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)				
5.1 INTERLOCKING METHOD, HEIGHT, AND SEALANT	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
A. OVERLAPPED				
B. INTERLOCKED			2	F
C. SLIP LOCKED				
D. SNAP TOGETHER	1 1/2	F		
5.2 FASTENING METHOD				
A. THROUGH-FASTENED (exposed or concealed, specify)				
B. CLIP (exposed or concealed, specify)	CONCEALED		CONCEALED	
6. INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)				
6.1 DIMENSIONS				
A. WEIGHT PER ROOF SQUARE (pounds)				
B. EXPOSURE (inches)				
C. COVERAGE (approx. number of pieces per square at listed exposure)				
6.2 INSTALLATION PROCESSING				
A. 1. THROUGH-FASTENED (exposed or concealed, specify)				
2. KIND(S) OF FASTENER REQUIRED (nails, staples, screws, or NA)				
3. NUMBER OF FASTENERS PER PIECE (number or NA)				
B. SEAM SNAP-IN OR INTERLOCK (specify or NA)				
C. ADHESIVE/SEALANT REQUIRED (yes/no)				
D. SUPPORT BATTENS REQUIRED (yes/no)				
7. MANUFACTURER/PRODUCT DATA				
A. YEAR PRODUCT FIRST SOLD	1991		1979	
B. NUMBER OF SQUARES INSTALLED	> 100,000		> 100,000	
C. METHOD OF DISTRIBUTION (distributors, direct)	DISTRIBUTORS		DISTRIBUTORS	
D. NUMBER OF REGIONAL SERVICE LOCATIONS	2		2	
E. LICENSED APPLICATOR AGREEMENT (yes/no)	NO		NO	
FOR SALES INFORMATION, CONTACT:	J. BUSH 215/395-8445		J. BUSH 215/395-8445	
FOR TECHNICAL INFORMATION, CONTACT:	J. BUSH 215/395-8445		J. BUSH 215/395-8445	
8. ASTM E331 WATER INFILTRATION TEST RESULTS	NO LEAKAGE @12PSF(69 MPH)		NO LEAKAGE @10PSF	
9. ASTM E283 AIR INFILTRATION TEST RESULTS	0.08 CFM/le 2 @1.57 PSF(25 MPH)		0.13 CFM PER SQ FT @4.00 PSF	
10. UL FIRE RATINGS FOR ANY SPECIFICATION (per UL Standard 790)	CLASS A		CLASS A	
11. FM/UL WIND UPLIFT RATING FOR ANY SPECIFICATION	UL-90		UL-90	
12. SEE APPENDIX IF CHECKED	X		X	

NA=not applicable

Metal Roof Components

ATAS ALUMINUM CORPORATION		ATAS ALUMINUM CORPORATION		BERRIDGE MANUFACTURING CO.	
MONARCH ROOF MRC		SCANROOF		BERMUDA ROOF PANEL	
STANDING SEAM		SCANDANAVIAN		"BERMUDA"-STYLE HORIZONTAL PLANK	
12, 16, X 70		16 1/2 X 13 10/12		11 X UNLIMITED	
THICKNESS	FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
24	KYNAR 500	24	KYNAR 500	24	KYNAR 500
				24	KYNAR 500
				24	
0.032	KYNAR	0.032			
				16	
2:12 2:12		3:12 2:12		3:12	
X X X 30-LB FELT		X X X 30-LB FELT		X X X 30-LB FELT	
HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none
2 1/2	F	2	N	1	F
CONCEALED		EXPOSED AND CONCEALED		CONCEALED	
1979 > 100,000 DISTRIBUTORS 2 NO J. BUSH 215/395-8445 J. BUSH 215/395-8445		1980 > 100,000 DISTRIBUTORS 2 NO J. BUSH 215/395-8445 J. BUSH 215/395-8445		1992 > 10,000 DISTRIBUTORS, DIRECT 7 YES D. DOYLE 800/231-8127 B. MARKS 800/231-8127	
NO LEAKAGE @10PSF				NONE	
0.13 CFM per SQ FT @4.00 PSF				NONE	
CLASS A UL-90 X		CLASS A UL-90 X		CLASS A UL-60	

Metal Roof Components

1. COMPANY NAME	BERRIDGE MANUFACTURING CO.		BERRIDGE MANUFACTURING CO.	
2. PRODUCT NAME	RUSTIC SHAKE SHINGLE		BERMUDA SHAKE SHINGLE	
3. CONFIGURATION				
3.1 STYLE				
A. SIMULATED SHINGLE (specific type if applicable)				
B. SIMULATED SHAKE (specific type if applicable)	CEDAR SHAKE		CEDAR – SMOOTH	
C. SIMULATED SLATE (specific type if applicable)				
D. SIMULATED TILE (specific type if applicable)				
E. OTHER (specific type)				
3.2 COMPONENT TYPE AND SIZE				
A. PANEL [width (in.), maximum length (ft.)]				
B. INDIVIDUAL (dimensions: inches x inches)	12 X 24		10 X 60	
3.3 MATERIALS, THICKNESSES, AND FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
GALVANIZED STEEL (ga.)	24	KYNAR 500	24	KYNAR 500
STAINLESS STEEL (ga.)	24		24	
GALVALUME (ga.)	24	KYNAR 500	24	KYNAR 500
ALUMINIZED STEEL (ga.)				
ALUMINUM (in.)				
COPPER (oz.)	16		16	
TERNE METAL (ga.)				
ZINC (ga.)				
4. SYSTEMS RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (in. per ft.)	3:12		3:12	
B. MINIMUM SLOPE RECOMMENDED IN SPECIAL APPLICATION (in. per ft.)				
C. DECK TYPES				
SOLID DECK, WOOD	X		X	
SPACED SHEATHING, WOOD	X		X	
DECKING NOT REQUIRED				
D. UNDERLAYMENT RECOMMENDED (type or NA)	30-LB FELT		30-LB FELT	
5. PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)				
5.1 INTERLOCKING METHOD, HEIGHT, AND SEALANT	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
A. OVERLAPPED				
B. INTERLOCKED				
C. SLIP LOCKED				
D. SNAP TOGETHER				
5.2 FASTENING METHOD				
A. THROUGH-FASTENED (exposed or concealed, specify)				
B. CLIP (exposed or concealed, specify)				
6. INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)				
6.1 DIMENSIONS				
A. WEIGHT PER ROOF SQUARE (pounds)	155		135	
B. EXPOSURE (inches)	12 X 24		10 X 60	
C. COVERAGE (approx. number of pieces per square at listed exposure)	50		24	
6.2 INSTALLATION PROCESSING				
A. 1. THROUGH-FASTENED (exposed or concealed, specify)	CONCEALED		CONCEALED CLIP	
2. KIND(S) OF FASTENER REQUIRED (nails, staples, screws, or NA)	NAILS		NAIL	
3. NUMBER OF FASTENERS PER PIECE (number or NA)	2		4	
B. SEAM SNAP-IN OR INTERLOCK (specify or NA)	INTERLOCK		INTERLOCK	
C. ADHESIVE/SEALANT REQUIRED (yes/no)	NO		NO	
D. SUPPORT BATTENS REQUIRED (yes/no)	NO		NO	
7. MANUFACTURER/PRODUCT DATA				
A. YEAR PRODUCT FIRST SOLD	1970		1970	
B. NUMBER OF SQUARES INSTALLED	> 10,000		> 5,000	
C. METHOD OF DISTRIBUTION (distributors, direct)	DISTRIBUTORS, DIRECT		DISTRIBUTORS, DIRECT	
D. NUMBER OF REGIONAL SERVICE LOCATIONS	7		7	
E. LICENSED APPLICATOR AGREEMENT (yes/no)	YES		YES	
FOR SALES INFORMATION, CONTACT:	D. DOYLE 800/231-8127		D. DOYLE 800/231-8127	
FOR TECHNICAL INFORMATION, CONTACT:	B. MARKS 800/231-8127		B. MARKS 800/231-8127	
8. ASTM E331 WATER INFILTRATION TEST RESULTS	NONE		NONE	
9. ASTM E283 AIR INFILTRATION TEST RESULTS	NONE		NONE	
10. UL FIRE RATINGS FOR ANY SPECIFICATION (per UL Standard 790)	CLASS A		CLASS A	
11. FM/UL WIND UPLIFT RATING FOR ANY SPECIFICATION	NONE		NONE	
12. SEE APPENDIX IF CHECKED				

NA=not applicable

Metal Roof Components

BERRIDGE MANUFACTURING CO.		BERRIDGE MANUFACTURING CO.		BERRIDGE MANUFACTURING CO.	
SPANISH TILE		VICTORAIN SHINGLE		CLASSIC SHINGLE	
		FLAT WITH SCULPTURED DESIGN–RESTORATION		FLAT WITH SCULPTURED DESIGN–RESTORATION	
SPANISH					
9 X 40 8 X 17		10 15/16 X 13 7/8		10 5/16 X 13 7/8	
THICKNESS	FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
24	KYNAR 500	24	KYNAR 500, UNFINISHED	24	KYNAR 500, UNFINISHED
24		24		24	
24	KYNAR 500	24	KYNAR 500, UNFINISHED	24	KYNAR 500, UNFINISHED
16		16		16	
3:12		6:12		6:12	
X X X NA		X 30-LB FELT		X 30-LB FELT	
HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none
2	N				
CONCEALED					
256 8 X 16 100		151 9 X 12 133		151 9 X 12 133	
CONCEALED SCREWS 1 NA NO NO		CONCEALED NAILS 2 INTERLOCK NO NO		CONCEALED NAILS 2 INTERLOCK NO NO	
1970 > 20,000 DISTRIBUTORS, DIRECT 7 YES D. DOYLE 800/231–8127 B. MARKS 800/231–8127		1970 > 1,000 DISTRIBUTORS, DIRECT 7 YES D. DOYLE 800/231–8127 B. MARKS 800/231–8127		1970 > 1,000 DISTRIBUTORS, DIRECT 7 YES D. DOYLE 800/231–8127 B. MARKS 800/231–8127	
NONE		NONE		NONE	
NONE		NONE		NONE	
CLASS A		CLASS A		CLASS A	
NONE		NONE		NONE	

Metal Roof Components

	CLASSIC PRODUCTS, INC.		GERARD ROOFING TECHNOLOGIES	
1. COMPANY NAME	CLASSIC PRODUCTS, INC.		GERARD ROOFING TECHNOLOGIES	
2. PRODUCT NAME	RUSTIC SHINGLE		GERARD SHAKE	
3. CONFIGURATION				
3.1 STYLE				
A. SIMULATED SHINGLE (specific type if applicable)	X		X	
B. SIMULATED SHAKE (specific type if applicable)				
C. SIMULATED SLATE (specific type if applicable)				
D. SIMULATED TILE (specific type if applicable)				
E. OTHER (specific type)				
3.2 COMPONENT TYPE AND SIZE				
A. PANEL [width (in.), maximum length (ft.)]				
B. INDIVIDUAL (dimensions: inches x inches)	12 X 24		44 3/4 X 15 1/2	
3.3 MATERIALS, THICKNESSES, AND FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
GALVANIZED STEEL (ga.)			26	STONE COATED
STAINLESS STEEL (ga.)				
GALVALUME (ga.)			26	STONE COATED
ALUMINIZED STEEL (ga.)				
ALUMINUM (in.)	0.019	KYNAR		
COPPER (oz.)				
TERNE METAL (ga.)				
ZINC (ga.)				
4. SYSTEMS RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (in. per ft.)	3:12		2 1/2:12	
B. MINIMUM SLOPE RECOMMENDED IN SPECIAL APPLICATION (in. per ft.)	3:12		2 1/2:12	
C. DECK TYPES				
SOLID DECK, WOOD	X		X	
SPACED SHEATHING, WOOD			X	
DECKING NOT REQUIRED			X	
D. UNDERLAYMENT RECOMMENDED (type or NA)	30-LB FELT		30-LB FELT	
5. PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)				
5.1 INTERLOCKING METHOD, HEIGHT, AND SEALANT	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
A. OVERLAPPED				
B. INTERLOCKED				
C. SLIP LOCKED				
D. SNAP TOGETHER				
5.2 FASTENING METHOD				
A. THROUGH-FASTENED (exposed or concealed, specify)				
B. CLIP (exposed or concealed, specify)				
6. INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)				
6.1 DIMENSIONS				
A. WEIGHT PER ROOF SQUARE (pounds)	40		140	
B. EXPOSURE (inches)	12 X 24		42 3/4 X 14 1/2	
C. COVERAGE (approx. number of pieces per square at listed exposure)	50		23.2	
6.2 INSTALLATION PROCESSING				
A. 1. THROUGH-FASTENED (exposed or concealed, specify)	CONCEALED		EXPOSED	
2. KIND(S) OF FASTENER REQUIRED (nails, staples, screws, or NA)	NAILS		NAILS OR SCREWS	
3. NUMBER OF FASTENERS PER PIECE (number or NA)	2		5	
B. SEAM SNAP-IN OR INTERLOCK (specify or NA)	INTERLOCK		INTERLOCK	
C. ADHESIVE/SEALANT REQUIRED (yes/no)	NO		NO	
D. SUPPORT BATTENS REQUIRED (yes/no)	NO		YES	
7. MANUFACTURER/PRODUCT DATA				
A. YEAR PRODUCT FIRST SOLD	1960		1989	
B. NUMBER OF SQUARES INSTALLED	> 500,000		> 100,000	
C. METHOD OF DISTRIBUTION (distributors, direct)	DISTRIBUTORS		DISTRIBUTORS, DIRECT	
D. NUMBER OF REGIONAL SERVICE LOCATIONS			2	
E. LICENSED APPLICATOR AGREEMENT (yes/no)	NO		NO	
FOR SALES INFORMATION, CONTACT:	T. MILLER 800/543-8938		B. NUSSBAUM 800/341-3213	
FOR TECHNICAL INFORMATION, CONTACT:	D. MILLER 800/543-8938		FACTORY 800/841-3213	
8. ASTM E331 WATER INFILTRATION TEST RESULTS	NONE			
9. ASTM E283 AIR INFILTRATION TEST RESULTS	NONE			
10. UL FIRE RATINGS FOR ANY SPECIFICATION (per UL Standard 790)	CLASS A, B, AND C		CLASS A	
11. FM/UL WIND UPLIFT RATING FOR ANY SPECIFICATION	NONE			
12. SEE APPENDIX IF CHECKED				

NA=not applicable

Metal Roof Components

GERARD ROOFING TECHNOLOGIES		MBCI		MBCI	
GERARD TILE		CRAFTSMAN SERIES "HB" PROFILE		CRAFTSMAN SERIES "SB" PROFILE	
X					
		STANDING SEAM: SEPARATE PAN AND BATTEN		STANDING SEAM: SEPARATE PAN AND BATTEN	
45 3/4 X 15 1/2		12, 16 1/2 X 40		12, 16 1/2 X 40	
THICKNESS	FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
26	STONE COATED				
26	STONE COATED	22, 24, 26	BARE–SIGNATURE SERIES 200, 300, 400	22, 24, 26	BARE–SIGNATURE SERIES 200, 300, 400
		0.032	BARE–SIGNATURE SERIES 200, 300, 400	0.032	BARE–SIGNATURE SERIES 200, 300, 400
2 1/2:12		3:12		3:12	
2 1/2:12		3:12		3:12	
X		X		X	
X					
X					
30-LB FELT		30-LB FELT		30-LB FELT	
HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
		X	F	X	F
		CONCEALED		CONCEALED	
140					
43 3/4 X 14 1/2					
22.6					
EXPOSED					
NAILS OR SCREWS					
5					
INTERLOCK					
NO					
YES					
1971		1983		1983	
> 1 MILLION					
DISTRIBUTORS, DIRECT		DIRECT		DIRECT	
2		9		9	
NO		NO		NO	
B. NUSSBAUM 800/341–3213 FACTORY 800/841–3213		W. DICKINSON D. FULTON		W. DICKINSON D. FULTON	
		4 PSF – LEAKAGE RATE/NONE		4 PSF – LEAKAGE RATE/NONE	
		4 PSF – LEAKAGE RATE/0.035 (16 1/2"), 0.048 (12")		4 PSF – LEAKAGE RATE/0.035 (16 1/2"), 0.048 (12")	
CLASS A					
		UL-90		UL-90	

Metal Roof Components

1. COMPANY NAME	MBCI		MBCI	
2. PRODUCT NAME	CRAFTSMAN SERIES "LB" PROFILE		TRADITIONAL SERIES "BC" PROFILE	
3. CONFIGURATION				
3.1 STYLE				
A. SIMULATED SHINGLE (specific type if applicable)				
B. SIMULATED SHAKE (specific type if applicable)				
C. SIMULATED SLATE (specific type if applicable)				
D. SIMULATED TILE (specific type if applicable)				
E. OTHER (specific type)	STANDING SEAM: SEPARATE PAN AND BATTEN		STANDING SEAM: INTEGRAL BATTEN PANEL	
3.2 COMPONENT TYPE AND SIZE				
A. PANEL [width (in.), maximum length (ft.)]	12, 16 1/2 X 40		12, 15, 18 X 40	
B. INDIVIDUAL (dimensions: inches x inches)				
3.3 MATERIALS, THICKNESSES, AND FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
GALVANIZED STEEL (ga.)				
STAINLESS STEEL (ga.)				
GALVALUME (ga.)	22, 24, 26	BARE–SIGNATURE SERIES 200, 300, 400	22, 24, 26	BARE–SIGNATURE SERIES 200, 300, 400
ALUMINIZED STEEL (ga.)				
ALUMINUM (in.)	0.032	BARE–SIGNATURE SERIES 200, 300, 400	0.032	BARE–SIGNATURE SERIES 200, 300, 400
COPPER (oz.)				
TERNE METAL (ga.)				
ZINC (ga.)				
4. SYSTEMS RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (in. per ft.)	3:12		3:12	
B. MINIMUM SLOPE RECOMMENDED IN SPECIAL APPLICATION (in. per ft.)	3:12		3:12	
C. DECK TYPES				
SOLID DECK, WOOD	X		X	
SPACED SHEATHING, WOOD				
DECKING NOT REQUIRED				
D. UNDERLAYMENT RECOMMENDED (type or NA)	30-LB FELT		30-LB FELT	
5. PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)				
5.1 INTERLOCKING METHOD, HEIGHT, AND SEALANT	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
A. OVERLAPPED				
B. INTERLOCKED			X	
C. SLIP LOCKED				
D. SNAP TOGETHER	X	F		
5.2 FASTENING METHOD				
A. THROUGH-FASTENED (exposed or concealed, specify)				
B. CLIP (exposed or concealed, specify)	CONCEALED		CONCEALED	
6. INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)				
6.1 DIMENSIONS				
A. WEIGHT PER ROOF SQUARE (pounds)				
B. EXPOSURE (inches)				
C. COVERAGE (approx. number of pieces per square at listed exposure)				
6.2 INSTALLATION PROCESSING				
A. 1. THROUGH-FASTENED (exposed or concealed, specify)				
2. KIND(S) OF FASTENER REQUIRED (nails, staples, screws, or NA)				
3. NUMBER OF FASTENERS PER PIECE (number or NA)				
B. SEAM SNAP-IN OR INTERLOCK (specify or NA)				
C. ADHESIVE/SEALANT REQUIRED (yes/no)				
D. SUPPORT BATTENS REQUIRED (yes/no)				
7. MANUFACTURER/PRODUCT DATA				
A. YEAR PRODUCT FIRST SOLD	1983		1983	
B. NUMBER OF SQUARES INSTALLED				
C. METHOD OF DISTRIBUTION (distributors, direct)	DIRECT		DIRECT	
D. NUMBER OF REGIONAL SERVICE LOCATIONS	9		9	
E. LICENSED APPLICATOR AGREEMENT (yes/no)	NO		NO	
FOR SALES INFORMATION, CONTACT:	W. DICKINSON		W. DICKINSON	
FOR TECHNICAL INFORMATION, CONTACT:	D. FULTON		D. FULTON	
8. ASTM E331 WATER INFILTRATION TEST RESULTS			NONE	
9. ASTM E283 AIR INFILTRATION TEST RESULTS			NONE	
10. UL FIRE RATINGS FOR ANY SPECIFICATION (per UL Standard 790)			NONE	
11. FM/UL WIND UPLIFT RATING FOR ANY SPECIFICATION	UL-90		UL-90	
12. SEE APPENDIX IF CHECKED				

NA=not applicable

Metal Roof Components

MBCI		MBCI		MBCI	
TRADITIONAL SERIES "RC" PROFILE		TRADITIONAL SERIES "SC" PROFILE		LOKSEAM	
STANDING SEAM: INTEGRAL BATTEN PANEL		STANDING SEAM: INTEGRAL BATTEN PANEL		STANDING SEAM: VERTICAL LEG PANEL	
12, 15, 18 X 40		12, 15, 18 X 40		10, 12, 18 X 40	
THICKNESS	FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
22, 24, 26	BARE–SIGNATURE SERIES 200, 300, 400	22, 24, 26	BARE–SIGNATURE SERIES 200, 300, 400	22, 24, 26	BARE–SIGNATURE SERIES 200, 300, 400
0.032	BARE–SIGNATURE SERIES 200, 300, 400	0.032	BARE–SIGNATURE SERIES 200, 300, 400	0.032	BARE–SIGNATURE SERIES 200, 300, 400
3:12 3:12		3:12 3:12		3:12	
X		X		X X X	
30-LB FELT		30-LB FELT			
HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
X		X		X	F
CONCEALED		CONCEALED		CONCEALED	
1983		1983		1990	
DIRECT		DIRECT		DIRECT	
9		9		9	
NO		NO		NO	
W. DICKINSON D. FULTON		W. DICKINSON D. FULTON		W. DICKINSON D. FULTON	
NONE		NONE		1.57 PSF–LEAKAGE RATE/NONE	
NONE		NONE		1.57 PSF–LEAKAGE RATE: 0.009 (18"), 0.013 (12"), 0.016 (10")	
NONE		NONE			
UL-90		UL-90		UL-90	

Metal Roof Components

1. COMPANY NAME	MCELROY METAL INC.		MET-TILE INC.	
2. PRODUCT NAME	MEDALLION I & 2		MET-TILE	
3. CONFIGURATION				
3.1 STYLE				
A. SIMULATED SHINGLE (specific type if applicable)				
B. SIMULATED SHAKE (specific type if applicable)				
C. SIMULATED SLATE (specific type if applicable)				
D. SIMULATED TILE (specific type if applicable)			MISSION TILE	
E. OTHER (specific type)	STANDING SEAM: BATTEN CAP			
3.2 COMPONENT TYPE AND SIZE				
A. PANEL [width (in.), maximum length (ft.)]	12 X 40			
B. INDIVIDUAL (dimensions: inches x inches)			36 X 20	
3.3 MATERIALS, THICKNESSES, AND FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
GALVANIZED STEEL (ga.)			26	
STAINLESS STEEL (ga.)				
GALVALUME (ga.)	24	SILICONIZED POLYESTER, KYNAR 500, BARE	26	
ALUMINIZED STEEL (ga.)				
ALUMINUM (in.)				
COPPER (oz.)				
TERNE METAL (ga.)				
ZINC (ga.)				
4. SYSTEMS RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (in. per ft.)	3:12		3:12	
B. MINIMUM SLOPE RECOMMENDED IN SPECIAL APPLICATION (in. per ft.)			1 1/2:12	
C. DECK TYPES				
SOLID DECK, WOOD	X		X	
SPACED SHEATHING, WOOD			X	
DECKING NOT REQUIRED			X	
D. UNDERLAYMENT RECOMMENDED (type or NA)	30-LB FELT		30-LB FELT	
5. PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)				
5.1 INTERLOCKING METHOD, HEIGHT, AND SEALANT	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
A. OVERLAPPED				
B. INTERLOCKED				
C. SLIP LOCKED				
D. SNAP TOGETHER	1, 1 1/2	N		
5.2 FASTENING METHOD				
A. THROUGH-FASTENED (exposed or concealed, specify)				
B. CLIP (exposed or concealed, specify)	CONCEALED			
6. INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)				
6.1 DIMENSIONS				
A. WEIGHT PER ROOF SQUARE (pounds)				
B. EXPOSURE (inches)				
C. COVERAGE (approx. number of pieces per square at listed exposure)				
6.2 INSTALLATION PROCESSING				
A. 1. THROUGH-FASTENED (exposed or concealed, specify)			EXPOSED	
2. KIND(S) OF FASTENER REQUIRED (nails, staples, screws, or NA)				
3. NUMBER OF FASTENERS PER PIECE (number or NA)				
B. SEAM SNAP-IN OR INTERLOCK (specify or NA)				
C. ADHESIVE/SEALANT REQUIRED (yes/no)				
D. SUPPORT BATTENS REQUIRED (yes/no)				
7. MANUFACTURER/PRODUCT DATA				
A. YEAR PRODUCT FIRST SOLD	1990		1984	
B. NUMBER OF SQUARES INSTALLED	> 1,000		> 100,000	
C. METHOD OF DISTRIBUTION (distributors, direct)	DISTRIBUTORS, DIRECT		DISTRIBUTORS	
D. NUMBER OF REGIONAL SERVICE LOCATIONS	6		20	
E. LICENSED APPLICATOR AGREEMENT (yes/no)	NO		NO	
FOR SALES INFORMATION, CONTACT:	J. DARRAH	800/950-6531	S.MOSES	800/899-0311
FOR TECHNICAL INFORMATION, CONTACT:	E. OSTEN	800/950-6531	S.MOSES	800/899-0311
8. ASTM E331 WATER INFILTRATION TEST RESULTS	NO LEAKAGE AT 12 PSF			
9. ASTM E283 AIR INFILTRATION TEST RESULTS	0.005 AT 1.57 PSF			
10. UL FIRE RATINGS FOR ANY SPECIFICATION (per UL Standard 790)	NONE		CLASSES A, B, C	
11. FM/UL WIND UPLIFT RATING FOR ANY SPECIFICATION	NONE		UL-90	
12. SEE APPENDIX IF CHECKED				

NA=not applicable

Metal Roof Components

W.F. NORMAN		W.F. NORMAN		PETERSEN ALUMINUM CORP.	
SPANISH TILE		VICTORIAN		INTEGRAL BATTEN	
SPANISH		FISHSCALE		STANDING SEAM: INTEGRAL BATTEN SEAM	
12 X 15		8 1/2 X 12		11–18 X 40	
THICKNESS	FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
28		28		24	KYNAR 500
				0.032	KYNAR 500
16, 20		16, 20			
4:12		4:12		3:12 3:12	
X		X		X X	
30-LB FELT		30-LB FELT		30-LB FELT	
HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
				1 1/2	N
				CONCEALED	
125		125			
CONCEALED NAILS 2 INTERLOCK NO NO		CONCEALED NAILS 2 INTERLOCK NO NO			
1905		1905		1978 > 100,000 DISTRIBUTORS, DIRECT 4 NO 800/323–1960 800/323–1960	
				NO LEAKAGE @12 PSF	
				0.008 CFM/SQ FT @1.57PSF	
				NONE	
				UL-90	

Metal Roof Components

1. COMPANY NAME	PETERSEN ALUMINUM CORP.		PETERSEN ALUMINUM CORP.	
2. PRODUCT NAME	REDI-ROOF STANDING SEAM		SNAP-ON STANDING SEAM	
3. CONFIGURATION				
3.1 STYLE				
A. SIMULATED SHINGLE (specific type if applicable)				
B. SIMULATED SHAKE (specific type if applicable)				
C. SIMULATED SLATE (specific type if applicable)				
D. SIMULATED TILE (specific type if applicable)				
E. OTHER (specific type)	STANDING SEAM		STANDING SEAM	
3.2 COMPONENT TYPE AND SIZE				
A. PANEL [width (in.), maximum length (ft.)]	12 X 40		12–18 X 40	
B. INDIVIDUAL (dimensions: inches x inches)				
3.3 MATERIALS, THICKNESSES, AND FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
GALVANIZED STEEL (ga.)	24	KYNAR 500	24	KYNAR 500
STAINLESS STEEL (ga.)				
GALVALUME (ga.)				
ALUMINIZED STEEL (ga.)				
ALUMINUM (in.)	0.032	KYNAR 500	0.032	KYNAR 500
COPPER (oz.)				
TERNE METAL (ga.)				
ZINC (ga.)				
4. SYSTEMS RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (in. per ft.)	3:12		3:12	
B. MINIMUM SLOPE RECOMMENDED IN SPECIAL APPLICATION (in. per ft.)	3:12		3:12	
C. DECK TYPES				
SOLID DECK, WOOD	X		X	
SPACED SHEATHING, WOOD	X		X	
DECKING NOT REQUIRED				
D. UNDERLAYMENT RECOMMENDED (type or NA)	30-LB FELT		30-LB FELT	
5. PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)				
5.1 INTERLOCKING METHOD, HEIGHT, AND SEALANT	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
A. OVERLAPPED				
B. INTERLOCKED	1 1/2	N		
C. SLIP LOCKED				
D. SNAP TOGETHER			1	N
5.2 FASTENING METHOD				
A. THROUGH-FASTENED (exposed or concealed, specify)				
B. CLIP (exposed or concealed, specify)	CONCEALED		CONCEALED	
6. INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)				
6.1 DIMENSIONS				
A. WEIGHT PER ROOF SQUARE (pounds)				
B. EXPOSURE (inches)				
C. COVERAGE (approx. number of pieces per square at listed exposure)				
6.2 INSTALLATION PROCESSING				
A. 1. THROUGH-FASTENED (exposed or concealed, specify)				
2. KIND(S) OF FASTENER REQUIRED (nails, staples, screws, or NA)				
3. NUMBER OF FASTENERS PER PIECE (number or NA)				
B. SEAM SNAP-IN OR INTERLOCK (specify or NA)				
C. ADHESIVE/SEALANT REQUIRED (yes/no)				
D. SUPPORT BATTENS REQUIRED (yes/no)				
7. MANUFACTURER/PRODUCT DATA				
A. YEAR PRODUCT FIRST SOLD	1978		1978	
B. NUMBER OF SQUARES INSTALLED	> 100,000		> 100,000	
C. METHOD OF DISTRIBUTION (distributors, direct)	DISTRIBUTORS, DIRECT		DISTRIBUTORS, DIRECT	
D. NUMBER OF REGIONAL SERVICE LOCATIONS	4		4	
E. LICENSED APPLICATOR AGREEMENT (yes/no)	NO		NO	
FOR SALES INFORMATION, CONTACT:	800/323–1960		800/323–1960	
FOR TECHNICAL INFORMATION, CONTACT:	800/323–1960		800/323–1960	
8. ASTM E331 WATER INFILTRATION TEST RESULTS	NO LEAKAGE @12 PSF		NO LEAKAGE @12 PSF	
9. ASTM E283 AIR INFILTRATION TEST RESULTS	0.004 CFM/SQ FT @1.57PSF		0.006 CFM/SQ FT @1.57PSF	
10. UL FIRE RATINGS FOR ANY SPECIFICATION (per UL Standard 790)	NONE		NONE	
11. FM/UL WIND UPLIFT RATING FOR ANY SPECIFICATION	UL-90		UL-90	
12. SEE APPENDIX IF CHECKED				

NA=not applicable

Metal Roof Components

PETERSEN ALUMINUM CORP.		PETERSEN ALUMINUM CORP.		PETERSEN ALUMINUM CORP.	
FLUSH PANEL		REVEAL PANEL		SNAP-ON BATTEN	
STANDING SEAM		STANDING SEAM		STANDING SEAM: SNAP-ON BATTEN	
7–18 X 40		7–18 X 40		12–18 X 40	
THICKNESS	FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
24	KYNAR 500	24	KYNAR 500	24	KYNAR 500
0.032	KYNAR 500	0.032	KYNAR 500	0.032	KYNAR 500
				3:12 3:12	
X X		X X		X X	
30-LB FELT		30-LB FELT		30-LB FELT	
HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
1	N	1	N	1 1/2	N
CONCEALED		CONCEALED		CONCEALED	
1978 > 100,000 DISTRIBUTORS, DIRECT 4 NO 800/323–1960 800/323–1960		1978 > 100,000 DISTRIBUTORS, DIRECT 4 NO 800/323–1960 800/323–1960		1978 > 100,000 DISTRIBUTORS, DIRECT 4 NO 800/323–1960 800/323–1960	
NONE		NONE		NONE	
NONE		NONE		NONE	
NONE NONE		NONE NONE		NONE NONE	

Metal Roof Components

1. COMPANY NAME	PETERSEN ALUMINUM CORP.		PETERSEN ALUMINUM CORP.	
2. PRODUCT NAME	INTEGRAL STANDING SEAM		HIGH SNAP-ON STANDING SEAM	
3. CONFIGURATION				
3.1 STYLE				
A. SIMULATED SHINGLE (specific type if applicable)				
B. SIMULATED SHAKE (specific type if applicable)				
C. SIMULATED SLATE (specific type if applicable)				
D. SIMULATED TILE (specific type if applicable)				
E. OTHER (specific type)	STANDING SEAM		STANDING SEAM	
3.2 COMPONENT TYPE AND SIZE				
A. PANEL [width (in.), maximum length (ft.)]	11–18 X 40		11–18 X 40	
B. INDIVIDUAL (dimensions: inches x inches)				
3.3 MATERIALS, THICKNESSES, AND FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
GALVANIZED STEEL (ga.)	24	KYNAR 500	24	KYNAR 500
STAINLESS STEEL (ga.)				
GALVALUME (ga.)				
ALUMINIZED STEEL (ga.)				
ALUMINUM (in.)	0.032	KYNAR 500	0.032	KYNAR 500
COPPER (oz.)				
TERNE METAL (ga.)				
ZINC (ga.)				
4. SYSTEMS RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (in. per ft.)	3:12		3:12	
B. MINIMUM SLOPE RECOMMENDED IN SPECIAL APPLICATION (in. per ft.)	3:12		3:12	
C. DECK TYPES				
SOLID DECK, WOOD	X		X	
SPACED SHEATHING, WOOD	X		X	
DECKING NOT REQUIRED				
D. UNDERLAYMENT RECOMMENDED (type or NA)	30-LB FELT		30-LB FELT	
5. PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)				
5.1 INTERLOCKING METHOD, HEIGHT, AND SEALANT	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
A. OVERLAPPED				
B. INTERLOCKED	1 1/2	N		
C. SLIP LOCKED				
D. SNAP TOGETHER			1 1/2	N
5.2 FASTENING METHOD				
A. THROUGH-FASTENED (exposed or concealed, specify)				
B. CLIP (exposed or concealed, specify)	CONCEALED		CONCEALED	
6. INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)				
6.1 DIMENSIONS				
A. WEIGHT PER ROOF SQUARE (pounds)				
B. EXPOSURE (inches)				
C. COVERAGE (approx. number of pieces per square at listed exposure)				
6.2 INSTALLATION PROCESSING				
A. 1. THROUGH-FASTENED (exposed or concealed, specify)				
2. KIND(S) OF FASTENER REQUIRED (nails, staples, screws, or NA)				
3. NUMBER OF FASTENERS PER PIECE (number or NA)				
B. SEAM SNAP-IN OR INTERLOCK (specify or NA)				
C. ADHESIVE/SEALANT REQUIRED (yes/no)				
D. SUPPORT BATTENS REQUIRED (yes/no)				
7. MANUFACTURER/PRODUCT DATA				
A. YEAR PRODUCT FIRST SOLD	1978		1978	
B. NUMBER OF SQUARES INSTALLED	> 100,000		> 100,000	
C. METHOD OF DISTRIBUTION (distributors, direct)	DISTRIBUTORS, DIRECT		DISTRIBUTORS, DIRECT	
D. NUMBER OF REGIONAL SERVICE LOCATIONS	4		4	
E. LICENSED APPLICATOR AGREEMENT (yes/no)	NO		NO	
FOR SALES INFORMATION, CONTACT:	800/323–1960		800/323–1960	
FOR TECHNICAL INFORMATION, CONTACT:	800/323–1960		800/323–1960	
8. ASTM E331 WATER INFILTRATION TEST RESULTS	NO LEAKAGE @12 PSF		NO LEAKAGE @12 PSF	
9. ASTM E283 AIR INFILTRATION TEST RESULTS	0.02 CFM/SQ FT @1.57PSF		0.005 CFM/SQ FT @1.57PSF	
10. UL FIRE RATINGS FOR ANY SPECIFICATION (per UL Standard 790)	NONE		NONE	
11. FM/UL WIND UPLIFT RATING FOR ANY SPECIFICATION	UL-90		UL-90	
12. SEE APPENDIX IF CHECKED				

NA=not applicable

Metal Roof Components

REINKE SHAKES	ULTRA SEAM, INC.	ULTRA SEAM, INC.
REINKE SHAKES	US 150 SL	US 175 SL
X		
	STANDING SEAM	STANDING SEAM
10 X 12	12 3/4, 14 3/4, 18 3/4 X NO LIMIT	12 3/4, 14 3/4, 18 3/4 X NO LIMIT

THICKNESS	FINISHES
0.019	GLIDDEN AQUALURE
12	MILL

THICKNESS	FINISHES
24, 26, 28	KYNAR
0.015, 0.018	UNFINISHED
24, 26	KYNAR, UNFINISHED
24, 26	UNFINISHED
0.027, 0.032	KYNAR, UNFINISHED
16, 20	KYNAR, UNFINISHED
26, 28, 20	
0.020, 0.027	UNFINISHED

THICKNESS	FINISHES
24, 26, 28	KYNAR
0.015, 0.018	UNFINISHED
24, 26	KYNAR, UNFINISHED
24, 26	UNFINISHED
0.027, 0.032	KYNAR, UNFINISHED
16, 20	KYNAR, UNFINISHED
26, 28, 20	
0.020, 0.027	UNFINISHED

REINKE SHAKES	ULTRA SEAM, INC.	ULTRA SEAM, INC.
2:12	3:12	3:12
X	X	X
	X	X
15-LB FELT	30-LB FELT	30-LB FELT

HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none

HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
1 1/2	E

HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
1 3/4	E

REINKE SHAKES	ULTRA SEAM, INC.	ULTRA SEAM, INC.
	CONCEALED	CONCEALED
46		
8 X 12		
50		
EXPOSED NAILS		
3		
NO		
NO		
1969	1991	1982
100,000		
DIRECT	DISTRIBUTORS	DISTRIBUTORS
	10	10
NO	YES	YES
J. JOHNSTON 402/488-7181	L. PRIDE 800/874-7326	L. PRIDE 800/874-7326
J. JOHNSTON 402/488-7181	R. STEYER 313/960-0970	R. STEYER 313/960-0970
CLASS A		

Metal Roof Components

1. COMPANY NAME	ULTRA SEAM, INC.		ULTRA SEAM, INC.	
2. PRODUCT NAME	US 150 A		US 150 WB	
3. CONFIGURATION				
3.1 STYLE				
A. SIMULATED SHINGLE (specific type if applicable)				
B. SIMULATED SHAKE (specific type if applicable)				
C. SIMULATED SLATE (specific type if applicable)				
D. SIMULATED TILE (specific type if applicable)				
E. OTHER (specific type)	STANDING SEAM		STANDING SEAM: BATTEN SEAM	
3.2 COMPONENT TYPE AND SIZE				
A. PANEL [width (in.), maximum length (ft.)]	12, 16, 20, 24 X NO LIMIT		15 3/4, 19 3/4, 23 3/4 XNO LIMIT	
B. INDIVIDUAL (dimensions: inches x inches)				
3.3 MATERIALS, THICKNESSES, AND FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
GALVANIZED STEEL (ga.)	24, 26, 28	KYNAR	24, 26, 28	KYNAR
STAINLESS STEEL (ga.)	0.015, 0.018	UNFINISHED	0.015, 0.018	UNFINISHED
GALVALUME (ga.)	24, 26	KYNAR, UNFINISHED	24, 26	KYNAR, UNFINISHED
ALUMINIZED STEEL (ga.)	24, 26	UNFINISHED	24, 26	UNFINISHED
ALUMINUM (in.)	0.027, 0.032	KYNAR, UNFINISHED	0.027, 0.032	KYNAR, UNFINISHED
COPPER (oz.)	16, 20	KYNAR, UNFINISHED	16, 20	KYNAR, UNFINISHED
TERNE METAL (ga.)	26, 28, 20		26, 28, 20	
ZINC (ga.)	0.020, 0.027	UNFINISHED	0.020, 0.027	UNFINISHED
4. SYSTEMS RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (in. per ft.)			1 1/2:12	
B. MINIMUM SLOPE RECOMMENDED IN SPECIAL APPLICATION (in. per ft.)				
C. DECK TYPES				
SOLID DECK, WOOD	X		X	
SPACED SHEATHING, WOOD	X		X	
DECKING NOT REQUIRED				
D. UNDERLAYMENT RECOMMENDED (type or NA)	30-LB FELT		30-LB FELT	
5. PANEL CONFIGURATION (For components in item 3.2A above; for individual components, see item 6.)				
5.1 INTERLOCKING METHOD, HEIGHT, AND SEALANT	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E=field applied; N=none
A. OVERLAPPED				
B. INTERLOCKED	1 1/2	E	1 1/2	E
C. SLIP LOCKED				
D. SNAP TOGETHER				
5.2 FASTENING METHOD				
A. THROUGH-FASTENED (exposed or concealed, specify)				
B. CLIP (exposed or concealed, specify)	CONCEALED		CONCEALED	
6. INDIVIDUAL COMPONENT CONFIGURATION (For components in item 3.2B above; for panels, see item 5.)				
6.1 DIMENSIONS				
A. WEIGHT PER ROOF SQUARE (pounds)				
B. EXPOSURE (inches)				
C. COVERAGE (approx. number of pieces per square at listed exposure)				
6.2 INSTALLATION PROCESSING				
A. 1. THROUGH-FASTENED (exposed or concealed, specify)				
2. KIND(S) OF FASTENER REQUIRED (nails, staples, screws, or NA)				
3. NUMBER OF FASTENERS PER PIECE (number or NA)				
B. SEAM SNAP-IN OR INTERLOCK (specify or NA)				
C. ADHESIVE/SEALANT REQUIRED (yes/no)				
D. SUPPORT BATTENS REQUIRED (yes/no)				
7. MANUFACTURER/PRODUCT DATA				
A. YEAR PRODUCT FIRST SOLD	1982		1982	
B. NUMBER OF SQUARES INSTALLED				
C. METHOD OF DISTRIBUTION (distributors, direct)	DISTRIBUTORS		DISTRIBUTORS	
D. NUMBER OF REGIONAL SERVICE LOCATIONS	10		10	
E. LICENSED APPLICATOR AGREEMENT (yes/no)	YES		YES	
FOR SALES INFORMATION, CONTACT:	L. PRIDE	800/874-7326	L. PRIDE	800/874-7326
FOR TECHNICAL INFORMATION, CONTACT:	R. STEYER	313/960-0970	R. STEYER	313/960-0970
8. ASTM E331 WATER INFILTRATION TEST RESULTS	NO LEAKAGE,15 MINUTES @ 9 PSF			
9. ASTM E283 AIR INFILTRATION TEST RESULTS	0.004 CFM/SQ FT			
10. UL FIRE RATINGS FOR ANY SPECIFICATION (per UL Standard 790)				
11. FM/UL WIND UPLIFT RATING FOR ANY SPECIFICATION	UL-90			
12. SEE APPENDIX IF CHECKED				

NA=not applicable

Metal Roof Components

ULTRA SEAM, INC.		VINCENT METALS		WEATHERFORD, INC.	
US 100 SS		COLORKLAD SYSTEM I		WEATHER-TITE DECKING PAN	
STANDING SEAM		STANDING SEAM		X	
14 1/2, 18 1/2 X NO LIMIT		12, 16, 18,22 X 40		12 X UNLIMITED	
THICKNESS	FINISHES	THICKNESS	FINISHES	THICKNESS	FINISHES
24, 26, 28	KYNAR	24	KYNAR 500		
0.015, 0.018	UNFINISHED	24, 26	MILL		
24, 26	KYNAR, UNFINISHED			24	POLYESTER
24, 26	UNFINISHED				
0.027, 0.032	KYNAR, UNFINISHED	0.032	MILL	0.026, 0.036	POLYESTER
16, 20	KYNAR, UNFINISHED	16, 20	MILL		
26, 28, 20		24, 26, 28, 30	MILL		
0.020, 0.027	UNFINISHED				
4:12 6:12		3:12			
X X		X			
30-LB FELT		30-LB FELT		X	
HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none	HEIGHT (inches)	SEAM SEALANT F=factory applied; E= field applied; N=none
				X	
1	E	1, 1 1/2	E	X	
CONCEALED		CONCEALED		X X	
1962		1969		1987	
				3 MILLION	
DISTRIBUTORS		DISTRIBUTORS, DIRECT		DIRECT, DISTRIBUTORS	
10				1	
YES		NO		NO	
L. PRIDE 800/874-7326 R. STEYER 313/960-0970		R. OEHME R. OEHME		D. WEATHERFORD 800/833-3980 T. WALKER 800/833-3980	
		NONE			
		NONE			
		NONE			

Slate

and

Residential Steep-Slope Synthetic Roof Components

Slate

1. COMPANY NAME	BRITSLATE NORTH AMERICA, INC.		BUCKINGHAM-VIRGINIA SLATE CORPORATION	
2. PRODUCT DESCRIPTION	REFORMED SLATE PARTICLES		BUCKINGHAM UNFADING	
3. TEXTURES	THICKNESSES (inches)	WEIGHTS PER ROOF SQUARE (pounds) (Standard 3-in. Headlap)	THICKNESSES (inches)	WEIGHTS PER ROOF SQUARE (pounds) (Standard 3-in. Headlap)
A. STANDARD SMOOTH	1/4	500	3/16–1/4	800–900
B. ROUGH			FULL 1/4	900
			FULL 3/8	1,100
			FULL 1/2	1,700
			1/2–3/4	2,300
			3/4–1	3,200
C. GRADUATED-TEXTURAL			3/16, 1/4, 3/8, 1/2, 3/4, 1	NA
4. SIZES	LENGTHS (inches) / STANDARD WIDTHS (inches)	EXPOSURE (inches) (Standard 3-in. Headlap)	LENGTHS (inches) / STANDARD WIDTHS (inches)	EXPOSURE (inches) (Standard 3-in. Headlap)
	20 / 10 24 / 12		24 / 16, 14, 13, 12, 11 22 / 14, 13, 12, 11, 10 20 / 14, 13, 12, 11, 10, 9 18 / 14, 13, 12, 11, 10, 9 16 / 14, 12, 11, 10, 9, 8 14 / 12, 11, 10, 9, 8, 7 12 / 10, 9, 8, 7, 6	10 1/2 9 1/2 8 1/2 7 1/2 6 1/2 5 1/2 4 1/2
5. COLORS AVAILABLE (specify: weathering, semi-weathering, unfading, or X.)				
A. BLACK	X			
B. BLUE-BLACK			UNFADING	
C. GRAY	X			
D. BLUE-GRAY				
E. GRAY-BLACK				
F. MOTTLED GRAY-BLACK				
G. GRAY-GREEN				
H. GREEN	X			
I. MOTTLED GRAY-GREEN				
J. PURPLE	X			
K. MOTTLED PURPLE/GREEN				
L. GREEN				
M. PURPLE VARIEGATED				
N. RED				
6. SLOPE/UNDERLAYMENT RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (inches per foot)	4:12		4:12	
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION	30-LB FELT		30-LB FELT	
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)				
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION				
7. RECOMMENDED DECKS				
A. TYPES				
1. SOLID SHEATHING	X		X	
2. SPACED SHEATHING			X	
B. MATERIAL				
1. PLYWOOD/WOOD	X		X	
2. ORIENTED STRAND BOARD				
3. WAFERBOARD				
4. OTHER (specify)				
8. FLASHING MATERIAL	COPPER		COPPER, TIN, LEAD, GALVANIZED IRON, OR ZINC	
9. YEAR PRODUCT FIRST SOLD	1983		1927	
10. NUMBER OF SQUARES INSTALLED	1 MILLION +		250,000	
11. DISTRIBUTION				
A. DISTRIBUTORS (number handling product or no)	NO		55	
B. DIRECT (number of regional service locations or no)			1	
12. TECHNICAL INFORMATION				
COMPLIES WITH ASTM STANDARD C408-94 *STANDARD SPECIFICATION FOR ROOFING SLATE* (grade: check one)				
GRADE S_1 Over 75 years service life			X	
GRADE S_2 40 to 75 years service life	X			
GRADE S_3 20 to 40 years service life				
13A. FOR SALES INFORMATION, CONTACT:	D. CONNORS 800/328–4888		804/581–1131	
13B. FOR TECHNICAL INFORMATION, CONTACT:	D. CONNORS 800/328–4888		804/581–1131	
14. SEE APPENDIX IF CHECKED				

NA=not applicable

Slate

ECHUGUREN SLATE, INC.		EVERGREEN SLATE COMPANY, INC.		HILLTOP SLATE INC.	
FOREIGN AND DOMESTIC SLATE		VERMONT ROOFING SLATE		VERMONT AND NEW YORK NATURAL SLATE	
THICKNESSES (inches)	WEIGHTS PER ROOF SQUARE (pounds) (Standard 3-in. Headlap)	THICKNESSES (inches)	WEIGHTS PER ROOF SQUARE (pounds) (Standard 3-in. Headlap)	THICKNESSES (inches)	WEIGHTS PER ROOF SQUARE (pounds) (Standard 3-in. Headlap)
3/16–1/4	700–800	3/16–1/4	700–800	3/16–1/4	700–800
1/4–3/8	1,000	1/4–3/8	1,000	3/16–1/4–3/8	825–1,000
3/8–1/2	1,500	3/8–1/2	1,500	FULL 1/4	900
1/2–3/4	2,300	1/2–3/4	2,200	FULL 3/8	1,100
3/4–1	3,200	3/4–1	3,400	FULL 1/2	1,700
1 +	4,000 +			FULL 3/4	2,300
				FULL 1	3,400
		3/16, 1/4, 3/8, 1/2, 3/4, 1	AVG. 1,800	3/16, 1/4, 3/8, 1/2, 3/4, 1	NA
LENGTHS (inches) STANDARD WIDTHS (inches)	EXPOSURE (inches) (Standard 3-in. Headlap)	LENGTHS (inches) STANDARD WIDTHS (inches)	EXPOSURE (inches) (Standard 3-in. Headlap)	LENGTHS (inches) STANDARD WIDTHS (inches)	EXPOSURE (inches) (Standard 3-in. Headlap)
24 16, 14, 12	10 1/2	24 16, 14, 12	10 1/2	24 16, 14, 12	10 1/2
22 14, 12, 11	9 1/2	22 16, 12, 11	9 1/2	22 16, 12, 11	9 1/2
20 14, 12, 11, 10	8 1/2	20 14, 12, 11, 10	8 1/2	20 14, 12, 11, 10	8 1/2
18 14, 12, 11, 10, 9	7 1/2	18 14, 12, 11, 10, 9	7 1/2	18 14, 12, 11, 10, 9	7 1/2
16 14, 12, 11, 10, 9, 8	6 1/2	16 14, 12, 11, 10, 9, 8	6 1/2	16 14, 12, 11, 10, 9, 8	6 1/2
14 12, 11, 10, 9, 8, 7	5 1/2	14 14, 12, 11, 19, 9, 8, 7	5 1/2	14 14, 12, 11, 19, 9, 8, 7	5 1/2
12 10, 9, 8, 7, 6	4 1/2	12 12, 10, 9, 8, 7, 6	4 1/2	12 12, 10, 9, 8, 7, 6	4 1/2
10 10, 9, 7, 6	3 1/2	10 10, 9, 8, 7, 6	3 1/2	10 10, 9, 8, 7, 6	3 1/2
X		UNFADING			
X		UNFADING			
X		SEMI-WEATHERING, UNFADING			
X				UNFADING	
X		SEMI-WEATHERING, UNFADING		SEMI-WEATHERING	
X		UNFADING			
X		SEMI-WEATHERING, UNFADING		SEMI-WEATHERING	
WEATHERING, UNFADING		SEMI-WEATHERING, UNFADING		UNFADING	
UNFADING		SEMI-UNFADING		UNFADING	
X		UNFADING		UNFADING	
		SEMI-WEATHERING, UNFADING			
X		SEMI-WEATHERING			
UNFADING		UNFADING		UNFADING	
4:12 30-LB FELT		8:12 30-LB FELT		4:12 30-LB FELT	
		4:12			
X		X			
X					
X		X			
COPPER, TIN, LEAD, GALVANIZED IRON, OR ZINC		COPPER, TIN, GALVANIZED, IRON, OR ZINC			
1983		1916		1948	
> 10,000		900,000		228,800	
30				3	
2		10		1	
X		X			
800/992–0701		R.C. HICKS 518/642–2530		R. BLACKWOOD 518/642–2270	
800/992–0701		R.C. HICKS 518/642–2530		R. BLACKWOOD 518/642–2270	
		X			

Slate

1. COMPANY NAME	PENN BIG BED SLATE COMPANY, INC.		RISING & NELSON SLATE COMPANY, INC.	
2. PRODUCT DESCRIPTION	PENNSYLVANIA SLATE		VERMONT ROOFING SLATE	
3. TEXTURES	THICKNESSES (inches)	WEIGHTS PER ROOF SQUARE (pounds) (Standard 3-in. Headlap)	THICKNESSES (inches)	WEIGHTS PER ROOF SQUARE (pounds) (Standard 3-in. Headlap)
A. STANDARD SMOOTH	3/16	750	3/16–1/4	700–850
B. ROUGH			3/16–1/4–3/8	850–1,050
			1/4–3/8	1,000
			3/8–1/2	1,500
			1/2–3/4	2,300
			3/4–1	3,200
C. GRADUATED-TEXTURAL			3/16, 1/4, 3/8, 1/2, 3/4, 1	NA
4. SIZES	LENGTHS (inches) / STANDARD WIDTHS (inches)	EXPOSURE (inches) (Standard 3-in. Headlap)	LENGTHS (inches) / STANDARD WIDTHS (inches)	EXPOSURE (inches) (Standard 3-in. Headlap)
	24 — 14, 12	10 1/2	24 — 16, 14, 12	10 1/2
	22 — 12, 11	9 1/2	22 — 16, 12, 11	9 1/2
	20 — 12, 11, 10	8 1/2	20 — 14, 12, 11, 10	8 1/2
	18 — 12, 11, 10, 9	7 1/2	18 — 14, 12, 11, 10, 9	7 1/2
	16 — 12, 11, 10, 9, 8	6 1/2	16 — 14, 12, 11, 10, 9, 8	6 1/2
	14 — 12, 11, 19, 9, 8, 7	5 1/2	14 — 14, 12, 11, 19, 9, 8, 7	5 1/2
	12 — 10, 9, 8, 7, 6	4 1/2	12 — 12, 10, 9, 8, 7, 6	4 1/2
			10 — 10, 9, 8, 7, 6	3 1/2
5. COLORS AVAILABLE (specify: weathering, semi-weathering, unfading, or *X*.)				
A. BLACK			X	
B. BLUE-BLACK			UNFADING	
C. GRAY			SEMI-WEATHERING	
D. BLUE-GRAY	X			
E. GRAY-BLACK			SEMI-WEATHERING	
F. MOTTLED GRAY-BLACK				
G. GRAY-GREEN			SEMI-WEATHERING	
H. GREEN			SEMI-WEATHERING	
I. MOTTLED GRAY-GREEN			X	
J. PURPLE			UNFADING	
K. MOTTLED PURPLE/GREEN			UNFADING	
L. GREEN			UNFADING	
M. PURPLE VARIEGATED			SEMI-WEATHERING	
N. RED			UNFADING	
6. SLOPE/UNDERLAYMENT RECOMMENDATIONS				
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (inches per foot)			5:12	
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION			30-LB FELT	
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)				
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION				
7. RECOMMENDED DECKS				
A. TYPES				
1. SOLID SHEATHING	X		X	
2. SPACED SHEATHING			X	
B. MATERIAL				
1. PLYWOOD/WOOD	X		X	
2. ORIENTED STRAND BOARD				
3. WAFERBOARD				
4. OTHER (specify)				
8. FLASHING MATERIAL	COPPER, GALVANIZED			
9. YEAR PRODUCT FIRST SOLD	1934		1869	
10. NUMBER OF SQUARES INSTALLED	135,000		300,000	
11. DISTRIBUTION				
A. DISTRIBUTORS (number handling product or no)				
B. DIRECT (number of regional service locations or no)	1		1	
12. TECHNICAL INFORMATION				
COMPLIES WITH ASTM STANDARD C408-94 *STANDARD SPECIFICATION FOR ROOFING SLATE* (grade: check one)				
GRADE S_1 Over 75 years service life	X		X	
GRADE S_2 40 to 75 years service life				
GRADE S_3 20 to 40 years service life				
13A. FOR SALES INFORMATION, CONTACT:	T. BABYAK 215/767–4601		S. WILLIAMS 800/348–8820	
13B. FOR TECHNICAL INFORMATION, CONTACT:	T. BABYAK 215/767–4601		J.M. MERTZ 802/645–0150	
14. SEE APPENDIX IF CHECKED			X	

NA=not applicable

Slate

VERMONT STRUCTURAL SLATE COMPANY, INC.	
VERMONT UNFADING SLATE	
THICKNESSES (inches)	WEIGHTS PER ROOF SQUARE (pounds) (Standard 3-in. Headlap)
3/16–1/4	700–850
3/16–3/8	700–1,350
3/16–2	NA
LENGTHS (inches) / STANDARD WIDTHS (inches)	EXPOSURE (inches) (Standard 3-in. Headlap)
24 — 16, 14, 12	10 1/2
22 — 16, 12, 11	9 1/2
20 — 14, 12, 11, 10	8 1/2
18 — 14, 12, 11, 10, 9	7 1/2
16 — 14, 12, 11, 10, 9, 8	6 1/2
14 — 14, 12, 11, 10, 9, 8, 7	5 1/2
12 — 12, 10, 9, 8, 7, 6	4 1/2
10 — 10, 9, 8, 7, 6	3 1/2
UNFADING	
SEMI-WEATHERING	
SEMI-WEATHERING	
UNFADING	
UNFADING	
UNFADING	
UNFADING	
UNFADING	
UNFADING	
4:12 30-LB FELT	
1:12 ICE AND WATER SHIELD	
X	
X	
X	
NAILABLE CONCRETE	
COPPER, LEAD, STAINLESS STEEL	
1859	
> 500,000	
15	
2	
X	
D. SHELDON, M. HANSON 800/343–1900	
D. SHELDON, M. HANSON 800/343–1900	
X	

Synthetic Roof Components

1. COMPANY NAME	KLOBER PLASTICS	KLOBER PLASTICS	KLOBER PLASTICS
2. PRODUCT NAME	KLOBER VENT TILE	KLOBER SOIL PIPE TILE	KLOBER ACRYLIC SKYLIGHT TILE
3.1 STYLE			
A. SIMULATED SHINGLE (specific type if applicable)			
B. SIMULATED SHAKE (specific type if applicable)			
C. SIMULATED SLATE (specific type if applicable)			
D. SIMULATED TILE (specific type if applicable)	X	X	X
E. OTHER (specify)			
F. NUMBER OF COLORS AVAILABLE			
3.2 COMPONENT TYPE			
A. PANEL			
B. INDIVIDUAL COMPONENT	X	X	X
4. AVAILABILITY RESTRICTED REGIONALLY (yes/no)	NO	NO	NO
5. MATERIAL COMPOSITION	HIGH-DENSITY PVC	HIGH-DENSITY PVC	HIGH-DENSITY PVC
6. DIMENSIONS AND COVERAGE			
A. DIMENSIONS (inches x inches)	TO MATCH TILE PRODUCTS	TO MATCH TILE PRODUCTS	TO MATCH TILE PRODUCTS
B. EXPOSURE (inches)			
C. HEADLAP (inches)			
D. PIECES PER ROOF SQUARE			
E. WEIGHT PER ROOF SQUARE (pounds)			
F. FASTENERS REQUIRED (nails, staples, or specify)	NONE	NONE	NONE
7. SLOPE/UNDERLAYMENT RECOMMENDATIONS			
A. MINIMUM SLOPE RECOMMENDED IN NORMAL APPLICATION (inches per foot)	4:12	4:12	4:12
B. UNDERLAYMENT RECOMMENDED IN NORMAL APPLICATION			
C. MINIMUM SLOPE RECOMMENDED FOR SPECIAL APPLICATION (inches per foot)			
D. UNDERLAYMENT RECOMMENDED IN SPECIAL APPLICATION			
8. APPROVED DECKS			
A. TYPES			
1. SOLID SHEATHING	X	X	X
2. SPACED SHEATHING	X	X	X
B. MATERIAL			
1. PLYWOOD/WOOD	X	X	X
2. ORIENTED STRAND BOARD	X	X	X
3. WAFERBOARD	X	X	X
4. OTHER (specify)			
9. YEAR PRODUCT FIRST SOLD	1949	1949	1949
10. NUMBER OF SQUARES INSTALLED			
11. DISTRIBUTION			
A. DISTRIBUTORS (number handling product or no)	50	50	50
B. DIRECT (number of regional service locations or no)	1	1	1
12. TECHNICAL INFORMATION			
A. FIRE/WIND RATINGS			
1. FIRE RATING(S) [specify standard(s) and rating(s)]	U.S. TESTING SERVICE CCI	NONE	NONE
2. WIND UPLIFT RATING(S) [specify standard(s) and rating(s)]	NONE	NONE	NONE
B. TEST RESULTS			
METHOD			
RESULTS			
METHOD			
RESULTS			
METHOD			
RESULTS			
METHOD			
RESULTS			
13. ACCEPTED BY THE FOLLOWING CODES	ICBO (4644) SBCII (9182)		NONE
14A. FOR SALES INFORMATION, CONTACT:	E. GAGE 800/733-3428	E. GAGE 800/733-3428	E. GAGE 800/733-3428
14B. FOR TECHNICAL INFORMATION, CONTACT:	E. GAGE 800/733-3428	E. GAGE 800/733-3428	E. GAGE 800/733-3428
15. SEE APPENDIX IF CHECKED			

NA=not applicable

Appendix

Asphalt Shingles

1. CELOTEX CORPORATION

Sol Seal/20 shingles can, on request, be manufactured to comply with ASTM D225-86, Type III requirements.

The FRS designation signifies that the shingle is fungus (algae) resistant.

On application, the exposed and headlap lengths of Presidential Shake shingles vary because of their unique design. The average exposed length is 8 1/4 inches; the average headlap length is 6 inches.

2. CERTAINTEED CORPORATION

Horizon Shangle shingles are constructed by a patented, unique overlay process that creates a dimensional look without lamination. Hallmark Shangle and Independence Shangle shingles are made using "Shangle" construction, which consists of full-size one-piece three-tab base shingles laminated with random tabs. Grand Manor Shangle shingles are made using "Super Shangle" construction, which consists of two full-size one-piece base shingles laminated with random tabs.

CertainTeed's shingle products are available in the following regions: East Coast (EC), Lake Central (LC), and North Central (NC). Following is a list of the regionally available shingles showing color availability in each region.

Product		Region	Colors
Hallmark Shangle	Fiberglass	EC	7
	Organic	LC, NC	8
Independence Shangle	Fiberglass	EC, NC	10
	Organic	LC	10
Horizon Shangle	Fiberglass	EC, LC	9
	Organic	NC	9
Hearthstead	Fiberglass	EC, LC	5,6
	Organic	NC	6
Custom Sealdon	Organic	LC, NC	9,10
CertainTeed XT25	Fiberglass	EC, LC, NC	12,10,9
FungusBuster 25	Fiberglass	EC	8
Sealdon 20	Organic	LC, NC	11,14
CertainTeed 20	Fiberglass	EC	11
Custom Lok 20	Organic	LC, NC	9

CertainTeed manufactures its shingles to meet dimensional tolerance of ± 1/16 inch.

The following shingles are recommended for application on hip and ridge, using matching colors: Grand Manor Accessory (for Grand Manor); Hallmark Accessory (for Hallmark); Accessory (for Independence, Horizon, and Hearthstead); Accessory or same as on roof (for CertainTeed XT-25, CertainTeed 20, Sealdon 20, and Custom Sealdon); Sealdon 20 (for Custom Lok 25); Solid Slab (for Solid Slab); and FungusBuster 25 (for FungusBuster 25).

Refer to individual application instructions provided with the shingles for special instructions regarding ice-dam protection and steep slopes. WinterGuard Waterproofing Shingle Underlayment, a self-adhering roll product containing rubber-modified asphalt, is applied on low-slope decks for protection against wind-driven rain and at the eaves to prevent leakage from water backup.

Shingles may be applied to minimum 3/8-inch-thick plywood, minimum 7/16-inch-thick nonveneer, or minimum nominal 1-inch-thick wood decks. The plywood or nonveneer decks must comply with APA specifications. Wood decking must not exceed maximum 6-inch nominal width. Shingles must not be applied to other deck types without written permission from CertainTeed.

CertainTeed fiberglass shingles meeting ASTM D3462 also comply with CSA Standard A123.5-M90. CertainTeed organic shingles meeting ASTM D225 also comply with CSA Standard A123.1-M1979. Grand Manor shingles comply with all requirements of ASTM D3462, except that length of exposure to the weather is 8 inches.

CertainTeed shingles are sold through distributors. For sales information, contact the local plant office, as follows: East Coast Region (Oxford, N.C.) 919/693-1141 FAX 919/693-9400; Lake Central Region (Avery, Ohio) 419/499-9256 FAX 419/499-4074; North Central Region (Shakopee, Minn.) 612/445-6450 FAX 612/496-3850.

For technical information, call 800/322-3060 FAX 215/341-6212; for architectural support, call 800/233-8990 FAX 313/953-0855.

3. GAF BUILDING MATERIALS CORPORATION

GAF district sales office are: Dallas, Texas, 214/637-1060; Erie, Pa., 814/452-3291; Fontana, Calif., 714/681-5711; Mills, Mass., 508/376-2661; Minneapolis, Minn., 612/529-9121; Mt. Vernon, Ind., 812/838-4861; Savannah, Ga., 912/964-1517; S. Bound Brook, N.J., 908/271-8400; and Tampa, Fla., 813/248-6202. Regional technical services office is: Wayne, N.J., 800/ROOF-411.

4. MANVILLE ROOFING SYSTEMS

Compliance with and/or certification to ASTM D-3018, ASTM D-3161, ASTM D-3462, or ASTM E-108, subject to possible exception(s), can be furnished only when requested on purchase order and acknowledged by Manville. Standard product complies with UL Standards for Fire Resistance Rating and UL Standards for Wind Resistance. If certification is required, it must be requested on purchase order and acknowledged by Manville.

5. TEGOLA CANADESE

Tegola Canadese's Prestige copper shingles are available in two profiles: 3-tab square-edge and 5-tab beaver tail. Both come with a 3-mil sheet of copper laminated to the top surface. The untreated copper naturally oxidizes.

Clay Tile

1. LUDOWICI-CELADON, INC.

All architectural clay products have an inherent color shade range due to the firing process.

Relative to slope recommendations, two layers of a 30-lb. asphalt-impregnated felt paper is recommended in lieu of a 40-lb. coated base sheet above the standard minimum roof pitch. Double felts should be applied on rough surfaces, hips, valleys, and ridges. On pitches below the standard minimum, application of a built-up roof or CertainTeed WinterGuard waterproofing underlayment (or its equivalent) directly to the roof deck is recommended.

For metal decks, the head of the screw should be covered with mastic to prevent leakage. For plywood decks, choose a nail length that will assure slight penetration through the underside of the deck. For wood plank decks, use nails at least 1½ inches in length, but they must not penetrate the underside of the deck. For gypsum and nailable concrete decks, use nails long enough to penetrate ½ to ¾ inch in length, but the nails must not penetrate the underside of the deck. Deck material must be fresh when tiles are applied, because old decking may be so hard that nailing becomes extremely difficult. If the deck material is excessively hard, use a smooth-shank nail.

The year that products were first sold is estimated in some cases.

2. M.C.A. CLAY ROOF TILE

Oriental tile is a low-profile "S"-shaped tile.

Concrete Tile

1. MONIER ROOF TILE, INC.

Bermuda Flat tiles and Barrel tile are mortar set only products.

Metal Roof Components

1. ATAS ALUMINUM CORP.

Atas Aluminum Corporation produces a wide range of panel styles for the residential roofing market, from simulated roof tiles to conventional standing seam profiles. All materials are offered in the fluoropolymer Kynar 500 coating system. More than twenty standard colors are offered in this system, which is designed to give long life with excellent chalk and fade resistance. Contact ATAS for more information and technical assistance.

Slate

1. EVERGREEN SLATE COMPANY, INC.

On slopes of 8:12 to 4:12, specify 4-in. head laps and use one layer of W.R. Grace Ice and Water Shield for greater protection.

Evergreen Slate royal purple slate holds its color very well.

2. RISING & NELSON SLATE CO., INC.

Roofing slate is also available in lengths of 26 through 48 inches, in thickness of 1/2, 3/4, and 1 inch.

On slopes of less than 5:12, a 4-in. headlap should be considered.

3. VERMONT STRUCTURAL SLATE COMPANY, INC.

Vermont Structural Slate Company, Inc. (VSS) offers a wide range of "Grade A" unfading roofing slates. VSS produces all standard sizes and thicknesses as well as custom pieces. All VSS material is of the highest quality.

VSS has reproduced *Slate Roofs*, originally published by the National Slate Association in 1926. Contact VSS for further information on the publication.



NATIONAL
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