



MIAMI-DADE COUNTY, FLORIDA  
METRO-DADE FLAGLER BUILDING

**BUILDING CODE COMPLIANCE OFFICE**  
METRO-DADE FLAGLER BUILDING  
140 WEST FLAGLER STREET, SUITE 1603  
MIAMI, FLORIDA 33130-1563  
(305) 375-2901 FAX (305) 375-2908

**PRODUCT CONTROL NOTICE OF ACCEPTANCE**

**G S Roofing Products Company, Inc.**  
**5525 MacArthur Blvd., Suite #900**  
**Irving TX 75015**

**CONTRACTOR LICENSING SECTION**  
(305) 375-2527 FAX (305) 375-2558

**CONTRACTOR ENFORCEMENT SECTION**  
(305) 375-2966 FAX (305) 375-2908

**PRODUCT CONTROL DIVISION**  
(305) 375-2902 FAX (305) 372-6339

Your application for Product Approval of:

***Conventional BUR Roofing Systems Over Lightweight Concrete Decks.***

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This approval shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at anytime from a jobsite or manufacturer's plant for quality control testing.

If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

**Acceptance No.: 99-1213.10**

**Expires: 04/28/2003**

Raul Rodriguez  
Chief Product Control Division

**THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL CONDITIONS**

**BUILDING CODE & PRODUCT REVIEW COMMITTEE**

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.  
Director

Miami-Dade County  
Building Code Compliance Office

**Approved: 04/28/2000**

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**ROOFING SYSTEM APPROVAL**

Applicant:  
**GS Roofing Products Co., Inc. d/b/a CertainTeed**  
 P.O. Box 860  
 Valley Forge, PA 19482

**Product Control No.:** 99-1213.10

**Approval Date:** April 28, 2000

**Expiration Date:** April 28, 2003

Category: Roofing  
Sub-Category: BUR

**Maximum Design Pressures**

<b><u>Material</u></b>	<b><u>Design Pressure</u></b>
Lightweight Concrete	-52.5 psf

**Maximum Fire Classification**

See General Limitation #1

**TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:**

<b><u>Product</u></b>	<b><u>Dimensions</u></b>	<b><u>Test Specification</u></b>	<b><u>Product Description</u></b>
All Weather/Empire Base Sheet	36" x 72'; Roll weight: 86 lbs. (2 squares)	ASTM D 2626 UL Type 15	Asphalt coated, organic base sheet.
Flintglas® Mineral Surfaced Cap Sheet	36" X 36'; Roll Weight: 78 lbs. (1 square)	ASTM D 3909	Asphalt impregnated and coated inorganic glass fiber surfaced with mineral granules used as the top ply in conventional built-up roof membranes.
Flintglas® Ply Sheet Type IV or VI	36" x 180'; Roll weight: 40/55 lbs. (5 squares)	ASTM D 2178 Type IV or VI UL Type G1	Fiberglass, asphalt impregnated ply sheet.
Flex-I-Glas or Flex-I-Glas FR Base Sheet	36" x 108'; Roll weight: 90 lbs. (3 squares)	ASTM D 5147	SBS Modified, fiberglass reinforced base sheet.
GlasBase™ Base Sheet	36" x 108'; Roll weight: 69 lbs. (3 squares)	ASTM D 4601 UL Type G2	Asphalt coated, fiberglass base sheet.
No. 15 Perforated Felt	36" x 144', Roll weight: 90 lbs. (4 square)	ASTM D 226	Organic asphalt saturated felt.
Yosemite® Mineral Surfaced Cap Sheet	36" x 36'; Roll weight: 90 lbs. (1 square)	ASTM D 249 UL Type 30	Mineral Surfaced organic cap and buffer sheet.



**EVIDENCE SUBMITTED:**

<u>Test Agency/Identifier</u>	<u>Name</u>	<u>Report</u>	<u>Date</u>
Applied Research Laboratories	Physical Properties	28013	06/02/87
Factory Mutual Research Corporation	Current Insulation Fastening Requirements	FMRC 1996	01/01/96
Factory Mutual Research Corporation	PA 114 (FMRC 4470)	J.I. #3Y8A1.AM	03/23/96
Factory Mutual Research Corporation	PA 114 (FMRC 4454)	J.I. 0D3A3.AM	04/04/97
Factory Mutual Research Corporation	PA 114 (FMRC 4470)	J.I. 2D0A0.AM	12/23/98
Factory Mutual Research Corporation	PA 114 (FMRC 4470)	J.I. 1D7A4.AM	11/09/98
Underwriters Laboratories, Inc.	Fire Classification Compliance	R11656	07/13/87
United States Testing Company, Inc.	ASTM D 5147	97457-4	06/03/88
United States Testing Company	ASTM D 5147	97-457-2R	12/02/87



**APPROVED SYSTEMS:**

- Membrane Type:** BUR
- Deck Type 4I:** Lightweight Concrete, Insulated, New Construction
- Deck Description:** Cellular Lightweight Concrete
- System Type A:** Anchor sheet mechanically fastened; all layers of insulation adhered with approved asphalt.

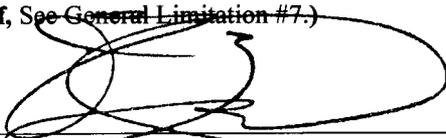
All General Limitations shall apply.

<u>Insulation Base Layer</u>	<u>Fastener Type</u>	<u>Fastening Detail No.</u> (see PA 117)	<u>Fasteners Per Board</u>	<u>Fastener Density</u>
one or more layers of any of the following insulations under those listed as Top Layer: Approved Type(s): <b>AC-Foam I, E'NRG'Y 2, E'NRG'Y 2 Plus</b> Minimum: 1" x 3' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): <b>ISORoc</b> Minimum: 1" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): <b>Multi-Max</b> Minimum: 1" x 4' x 8'	N/A	N/A	N/A	N/A
Approved Type(s): <b>High Density Wood Fiber</b> Minimum: 1/2" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): <b>Paroc</b> Minimum: 3/4" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): <b>Perlite</b> Minimum: 3/4" x 2' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): <b>Fiberglas</b> Minimum: 15/16" x 4' x 4'	N/A	N/A	N/A	N/A
Approved Type(s): <b>Dens Deck</b> Minimum: 1/4" x 4' x 8'	N/A	N/A	N/A	N/A

<u>Insulation Optional Top Layer</u>	<u>Fastener Type</u>	<u>Fastening Detail No.</u> (see PA 117)	<u>Fasteners Per Board</u>	<u>Fastener Density</u>
one or more layers of any of the following insulations Approved Type(s): See Approved Insulations listed for Base Layer, above. Minimum: see Base Layer	N/A	N/A	N/A	N/A

**Note: All insulation shall be adhered to the anchor sheet in full moppings of approved hot asphalt within the EVT range and at a rate of 20-40 lbs. Please refer to Miami-Dade County Roofing Application Standard RAS 117 for insulation attachment. Insulations listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Composite insulation panels may be used as a top layer placed with the polyisocyanurate side facing down.**

Anchor Sheet Options: (Option #1) One ply of All Weather/Empire, Flex-I-Glas, Flex-I-Glas FR, or PolySMS Base mechanically attached to the deck using ES Products FM-90 Base Ply Fasteners spaced 7 1/2" o.c. in the 4" side lap and 7 1/2" o.c. in two evenly divided, staggered rows in the center of the sheet.  
(Maximum Design Pressure -45 psf, See General Limitation #7.)

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Frank Zuloaga, RRC Product Control Examiner

(Option #2.) One ply of Glasbase, All Weather/Empire, Flex-I-Glas, or Flex-I-Glas FR mechanically attached to the deck using Simplex Base-Lok fasteners spaced 9" o.c. in the 4" side lap and 9" o.c. in two evenly divided, staggered rows in the center of the sheet.  
(Maximum Design Pressure –45 psf, See General Limitation #7.)

(Option #3.) One ply of All Weather/Empire mechanically attached to the deck using Simplex Base-Lok fasteners spaced 9" o.c. in the 4" side lap and 12" o.c. in two evenly divided, staggered rows in the center of the sheet.  
(Maximum Design Pressure –52.5 psf, See General Limitation #7.)

(Option #4.) One ply of All Weather/Empire or Glasbase mechanically attached to the deck using Olympic CR Base Ply Fasteners, or ES Products FM-90 Base Ply Fasteners spaced 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.  
(Maximum Design Pressure –52.5 psf, See General Limitation #7.)

**Base Sheet:** (Optional) Install one ply of All Weather/Empire, Flex-I-Glas or GlasBase base sheet directly over the top layer of insulation. Adhere with any approved mopping asphalt at an application rate of 25 lbs./sq. ± 15%.

**Ply Sheet:** Two, three, four or five plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or #15 Asphalt Perforated Felt ply sheet adhered in a full mopping of approved asphalt at an application rate of 25 lbs./sq. ± 15%.

**Cap Sheet:** (Optional) One ply of FlintGlas Mineral Surface cap sheet adhered in a full mopping of approved asphalt at an application rate of 25 lbs./sq. ± 15%.

**Surfacing:** (Required if no cap sheet is used) Install one of the following:

1. A two part coating consisting of a base coat of Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212..
2. Flood coat of approved Type III asphalt with an application rate of 60 lbs./sq.; plus gravel or slag at an application rate of 400 lbs./sq. or 300 lbs./sq. respectively.

**Maximum Fire Classification:** See General Limitation #1.

**Maximum Slope:** See General Limitation #1.

**Membrane Type:** BUR

**Deck Type 4:** Lightweight Concrete, Non-insulated, New Construction

**Deck Description:** Cellular Lightweight Concrete

**System Type E:** Base sheet mechanically fastened.

**All General Limitations shall apply.**

**Base Sheet Options:** (Option #1) One ply of All Weather/Empire, Flex-I-Glas, Flex-I-Glas FR, or PolySMS Base mechanically attached to the deck using ES Products FM-90 Base Ply Fasteners spaced 7½" o.c. in the 4" side lap and 7½" o.c. in two evenly divided, staggered rows in the center of the sheet.  
**(Maximum Design Pressure –45 psf, See General Limitation #7.)**

(Option #2.) One ply of Glasbase, All Weather/Empire, Flex-I-Glas, or Flex-I-Glas FR mechanically attached to the deck using Simplex Base-Lok fasteners spaced 9" o.c. in the 4" side lap and 9" o.c. in two evenly divided, staggered rows in the center of the sheet.  
**(Maximum Design Pressure –45 psf, See General Limitation #7.)**

(Option #3.) One ply of All Weather/Empire mechanically attached to the deck using Simplex Base-Lok fasteners spaced 9" o.c. in the 4" side lap and 12" o.c. in two evenly divided, staggered rows in the center of the sheet.  
**(Maximum Design Pressure –52.5 psf, See General Limitation #7.)**

(Option #4.) One ply of All Weather/Empire or Glasbase mechanically attached to the deck using Olympic CR Base Ply Fasteners, or ES Products FM-90 Base Ply Fasteners spaced 7" o.c. in the 4" side lap and 7" o.c. in two evenly divided, staggered rows in the center of the sheet.  
**(Maximum Design Pressure –52.5 psf, See General Limitation #7.)**

**Ply Sheet:** Two, three, four or five plies of Flintglas Ply Sheet (Type IV) or Flintglas Premium Ply Sheet (Type VI) or #15 Asphalt Perforated Felt ply sheet adhered in a full mopping of approved asphalt at an application rate of 25 lbs./sq. ± 15%.

**Cap Sheet:** (Optional) One ply of FlintGlas Mineral Surface cap sheet adhered in a full mopping of approved asphalt at an application rate of 25 lbs./sq. ± 15%.

**Surfacing:** (Required if no cap sheet is used) Install one of the following:

1. A two part coating consisting of a base coat of Static Asphalt Fibered Emulsion at rate of 3 gal./sq. or Monoform compound; surfaced with 1 gal./sq. Sta-Kool non-fibered aluminum coating or fibered APOC No. 212..
2. Flood coat of approved Type III asphalt with an application rate of 60 lbs./sq.; plus gravel or slag at an application rate of 400 lbs./sq. or 300 lbs./sq. respectively.

**Maximum Fire Classification:** See General Limitation #1.

**Maximum Slope:** See General Limitation #1.

**Lightweight Insulating Concrete System Limitations:**

- 1 If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Miami-Dade County Testing Application Standard TAS 105 and Miami-Dade County Roofing Application Standard RAS 117.

**GENERAL LIMITATIONS:**

- 1 Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
- 2 Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
- 3 All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
- 4 An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
- 5 Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
- 6 Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer or Architect may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Miami-Dade County Testing Application Standards TAS 105 and calculations in compliance with Miami-Dade Roofing Application Standard RAS 117.
- 7 Perimeter and corner areas shall comply with the enhanced uplift pressure of these areas, as calculated in compliance with Chapter 23 of the South Florida Building Code. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Miami-Dade County Roofing Application Standard RAS 117. **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
- 8 All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Miami-Dade County Roofing Application Standard RAS 111 and the wind load requirements of Chapter 23 of the South Florida Building Code.
- 9 The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**



GS Roofing Products Co., Inc. d/b/a CertainTeed  
P.O. Box 860  
Valley Forge, PA 19482

**ACCEPTANCE NO.: 99-1213.10**  
**APPROVED: April 28, 2000**  
**EXPIRES: April 28, 2003**

**NOTICE OF ACCEPTANCE STANDARD CONDITIONS**

- 1 Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documentation, including test supporting data, engineering documents, are no older than eight (8) years.
- 2 Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Metro-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.
- 3 Renewals of Acceptance will not be considered if:
  - a) There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes;
  - b) The product is no longer the same product (identical) as the one originally approved;
  - c) If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product;
  - d) The engineer who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.
- 4 Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
- 5 Any of the following shall also be grounds for removal of this Acceptance:
  - a) Unsatisfactory performance of this product or process;
  - b) Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.
- 6 The Notice of Acceptance number preceded by the words Metro-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the Notice of Acceptance is displayed, then it shall be done in its entirety.
- 7 A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all times. The copies need not be resealed by the engineer.
- 8 Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
- 9 This Acceptance contains pages 1 through 8.

**END OF THIS ACCEPTANCE**