

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
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PRODUCT EVALUATION SK-32

Effective February 1, 2012

The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **April 2015**.

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

Model EFHR and GSHR Vinyl Glass Skylights, Impact Resistant, manufactured by:

Wasco Products, Inc.
85 Spencer Drive – Unit A
Wells, Maine 04090
Telephone: (800) 388-0293

are acceptable for use along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation report.

PRODUCT DESCRIPTION

The Model EFHR and GSHR skylights are fixed vinyl skylights. The fixed vinyl skylights are impact resistant. This evaluation report is for fixed vinyl skylights based on the following tested configurations:

General Description:

| System | Description | Label Rating |
|--------|--------------------------|--|
| 1 | EFHR 4646 Vinyl Skylight | SKG-CW80 50 x 50 AAMA 506-08 Missile Level D |
| 2 | GSHR 4646 Vinyl Skylight | SKG-CW70 46 x 46 AAMA 506-08 Missile Level D |

Component Dimensions:

| System | Overall Frame Size | Fixed Daylight Opening Size |
|--------|---|---|
| 1 | 49 $\frac{5}{8}$ " x 49 $\frac{5}{8}$ " | 46 $\frac{5}{8}$ " x 46 $\frac{5}{8}$ " |
| 2 | 50 $\frac{5}{8}$ " x 50 $\frac{5}{8}$ " | 46 $\frac{3}{4}$ " x 46 $\frac{3}{4}$ " |

Glazing Description:

| System | Glass Construction ¹ | Glazing Method ² |
|--------|---------------------------------|-----------------------------|
| 1 | IG-1 | GM-1 |
| 2 | IG-2 | GM-1 |

Note: ¹ See the "Glass Construction Key" for the glazing construction.

² See the "Glazing Method Key" for the glazing method description.

Glass Construction Key:

IG-1: The skylight contains a sealed insulating glass unit. The insulating glass unit is comprised of a double strength ($\frac{1}{8}$ ") annealed glass lite and a laminated glass unit separated by a desiccant-filled stainless steel spacer system. The laminated glass unit is comprised of two double strength ($\frac{1}{8}$ ") annealed glass lites with a 0.090" SGP interlayer by DuPont. The glass thickness used in the insulating glass unit of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

IG-2: The skylight contains a sealed insulating glass unit. The insulating glass unit is comprised of a double strength ($\frac{1}{8}$ ") fully tempered glass lite and a laminated glass unit separated by a desiccant-filled stainless steel spacer system. The laminated glass unit is comprised of two double strength ($\frac{1}{8}$ ") annealed glass lites with a 0.090" SGP interlayer by DuPont. The glass thickness used in the insulating glass unit of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: Structural glazing tape and structural silicone sealant seals the perimeter of the insulating glass unit to the permatherm curb.

Frame Construction: The base frame is a permatherm vinyl curb with co-extruded ultraseal flashing.

Reinforcement: None.

Hardware: None.

Product Identification:

System 1: A certification program label (AAMA) will be affixed to the skylight. The certification program label includes the manufacturer's code name (**WAS**); product name: **EFHR 4646 Skylight**; performance characteristics; the approved inspection agency (AAMA); and the following applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-08 and AAMA 506-08.

System 2: A certification program label (AAMA) will be affixed to the skylight. The certification program label includes the manufacturer's code name (**WAS**); product name: **GSHR 4646 Skylight**; performance characteristics; the approved inspection agency (AAMA); and the following applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-08 and AAMA 506-08.

LIMITATIONS

Design pressures (DP):

| System | Maximum Width (in.) | Maximum Height (in.) | Design Pressure (psf) |
|--------|---------------------|----------------------|-----------------------|
| 1 | 49 $\frac{5}{8}$ | 49 $\frac{5}{8}$ | ± 80 |
| 2 | 50 $\frac{5}{8}$ | 50 $\frac{5}{8}$ | ± 70 |

Impact Resistance: These assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in both the **Inland I zone** and the **Seaward zone**. The assemblies passed Missile Level D specified in ASTM E 1996-06. The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded. These assemblies will not need to be protected with an impact protective system.

Acceptance of Smaller Assemblies: Identically built assemblies with dimensions equal to or smaller than those specified in this evaluation report are acceptable within the limitations specified in this evaluation report.

INSTALLATION INSTRUCTIONS

General: The skylight assembly shall be prepared and installed in accordance with the manufacturer's recommended installation instructions and this evaluation report. Detailed installation instructions and component drawings are available from the manufacturer.

System 1: The roof deck shall be minimum nominal $1\frac{5}{32}$ " plywood. The skylight is secured to the roof sheathing with aluminum anchor brackets (1" W x $3\frac{5}{8}$ " L x $\frac{7}{8}$ " thick). The anchor brackets are located under co-extruded flashing and fit into the extruded pocket of the vinyl curb. There are three (3) brackets on each side. One is located 8 inches from each exterior corners of the retainer and one is located at the centerline of each side. Each bracket is secured to the roof deck with two (2) No. 10 x 1" screws. Sealant is to be applied between the flashing and the roof deck per the manufacturer's instructions.

System 2: The skylights shall be mounted to a wood curb. The wood curb shall be minimum 2x Southern Yellow Pine dimension lumber. The wood curb and the attachment of the wood curb to the roof framing shall be designed to resist the design pressures of the skylight as specified in this evaluation report. The wood curb and the attachment of the wood curb to the structure shall be designed by an engineer licensed to practice in the State of Texas.

The skylight shall be secured to the wood curb with minimum No. 8 screws. The fasteners are driven horizontally from the bottom edge of the permatherm curb into the wood curb. The fasteners shall be spaced approximately $3\frac{1}{2}$ inches from each corner and approximately $3\frac{1}{2}$ inches on center along the perimeter of the skylight. The fasteners shall be long enough to penetrate a minimum of $1\frac{1}{2}$ inches into the wood framing. Sealant is to be applied between the curb and the skylight frame per the manufacturer's instructions.

Note: The manufacturer's installation instructions and the design drawings shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.