

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION RC-264

Effective November 1, 2010

*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 **November 2014**.*

*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.*

**Flex Tri-Polymer MF/R Polyester Reinforced PVC Membrane Roofing Systems Over Steel Decks**  
manufactured by

**Flex Membrane International, Inc.**  
**2670 Leiscz's Bridge Road, Suite 400**  
**Leesport, PA 19533-9433**  
**(610) 916-9506**

will be accepted in designated catastrophe zones along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

## PRODUCT DESCRIPTION

**Flex Tripolymer MF/R** roof membranes are nominal 0.045" thick polyester reinforced PVC membranes.

## LIMITATIONS and INSTALLATION

### General installation Requirements:

All International Residential Code (IRC) and the International Building Code (IBC) requirements must be satisfied and manufacturer's installation instructions followed, unless otherwise specified by this product evaluation. The roof framing members shall be spaced a maximum of 6'-0" o.c.

**For all applications:** The roof shall have a minimum slope of  $\frac{1}{4}$ :12.

### Assembly No. 1

**Design Wind Pressure:** -37.5 psf

**Roof Deck:** The roof deck shall consist 22 gauge steel deck conforming to ASTM A653 SS Grade 80.

**Insulation:** A minimum of 1.5" thick Flex ISO II, Flex ISO III, AC Foam II, AC Foam III, ENRGY 3, PSI-25, Hy-Therm AP, or Mult-Max 3 roof insulation.

The roof insulation is preliminary secured to the deck.

**Membrane:** One ply of Tripolymer MF/R roof membrane, 10'-0" wide sheet.

The membrane is secured to the roof deck with OMG  $2\frac{3}{8}$ " XHD barbed stress plates and the XHD screws installed 6" o.c. along the  $5\frac{1}{2}$ " wide lap seams of the membrane. The overlapping membrane edge is sealed with a 2" wide heat weld.

### **Assembly No. 2**

**Design Wind Pressure:** -37.5 psf

**Roof Deck:** The roof deck shall consist 22 gauge steel deck conforming to ASTM A653 SS Grade 80.

**Insulation:** A minimum of 1.5" thick Flex ISO II, Flex ISO III, AC Foam II, AC Foam III, ENRGY 3, PSI-25, Hy-Therm AP, or Multit-Max 3 roof insulation.

The roof insulation is preliminary secured to the deck.

**Membrane:** One ply of Tripolymer MF/R roof membrane, 10'-0" wide sheet.

The membrane is secured to the roof deck with OMG  $2\frac{3}{4}$ " XHD barbed stress plates and the XHD screws installed 12" o.c. along the 6" wide lap seams of the membrane. The overlapping membrane edge is sealed with a 2" wide heat weld.

### **Assembly No. 3**

**Design Wind Pressure:** -52.5 psf

**Roof Deck:** The roof deck shall consist 22 gauge steel deck conforming to ASTM A653 SS Grade 80.

**Insulation:** A minimum of 1.5" thick Flex ISO II, Flex ISO III, AC Foam II, AC Foam III, ENRGY 3, PSI-25, Hy-Therm AP, or Multit-Max 3 roof insulation.

The roof insulation is preliminary secured to the deck.

**Membrane:** One ply of Tripolymer MF/R roof membrane, 81" wide sheet.

The membrane is secured to the roof deck with OMG  $2\frac{3}{8}$ " XHD barbed stress plates and the XHD screws installed 6" o.c. along the  $5\frac{1}{2}$ " wide lap seams of the membrane. The overlapping membrane edge is sealed with a 2" wide heat weld.

### **Assembly No. 4**

**Design Wind Pressure:** -52.5 psf

**Roof Deck:** The roof deck shall consist 22 gauge steel deck conforming to ASTM A653 SS Grade 80.

**Insulation:** A minimum of 1.5" thick Flex ISO II, Flex ISO III, AC Foam II, AC Foam III, ENRGY 3, PSI-25, Hy-Therm AP, or Multit-Max 3 roof insulation.

The roof insulation is preliminary secured to the deck.

**Membrane:** One ply of Tripolymer MF/R roof membrane, 81" wide sheet.

The membrane is secured to the roof deck with OMG 2 <sup>3</sup>/<sub>4</sub>" XHD barbed stress plates and the XHD screws installed 12" o.c. along the 5 <sup>3</sup>/<sub>4</sub>" wide lap seams of the membrane. The overlapping membrane edge is sealed with a 2" wide heat weld.

#### **Assembly No. 5**

**Design Wind Pressure:** -60.0 psf

**Roof Deck:** The roof deck shall consist 22 gauge steel deck conforming to ASTM A653 SS Grade 80.

**Insulation:** A minimum of 1.5" thick Flex ISO II, Flex ISO III, ACFoam II, AC Foam III, ENRGY 3, PSI-25, Hy-Therm AP, or Multit-Max 3 roof insulation.

The roof insulation is secured to the roof deck with Rhinobond Insulation Plates and OMG Super XHD screws applied at a contributory rate of 1 per 4 square feet in a 2' x 2' grid pattern.

**Membrane:** One ply of Tripolymer MF/R roof membrane.

The membrane is heat welded to the Rhinobond Insulation Plates with the Rhinobond Insulation Plate bonding tool at a rate of 6 seconds per plate, tool reaches 400° F. The overlapping membrane edge is sealed with a 2" wide heat weld.

#### **Assembly No. 6**

**Design Wind Pressure:** -52.5 psf

**Roof Deck:** The roof deck shall consist 22 gauge steel deck conforming to ASTM A653 SS Grade 80.

**Insulation:** A minimum of 1.5" thick Flex ISO II, Flex ISO III, ACFoam II, AC Foam III, ENRGY 3, PSI-25, Hy-Therm AP, or Multit-Max 3 roof insulation.

The roof insulation is secured to the roof deck with Rhinobond Insulation Plates and OMG Super XHD screws applied at a contributory rate of 1 per 6 square feet in a 2' x 3' grid pattern.

**Membrane:** One ply of Tripolymer MF/R roof membrane.

The membrane is heat welded to the Rhinobond Insulation Plates with the Rhinobond Insulation Plate bonding tool at a rate of 6 seconds per plate, tool reaches 400° F. The overlapping membrane edge is sealed with a 2" wide heat weld.

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