



## FOAMULAR® 404 & 604 FOAMULAR 404 RB & 604 RB

### FOAMULAR Extruded Polystyrene Insulation



**For use in Protected Roof Membrane Assemblies and plaza deck systems.**

#### Owens Corning Has the System Solution for Protected Roof Membrane Assemblies (PRMA)

- FOAMULAR 404 and 604 insulation products protect the roof membrane from damage, thermal stress and UV exposure in PRMA systems.
- Designed for use with pavers, FOAMULAR 404 RB and 604 RB insulation products support pavers without the need for pedestals and provide excellent drainage.
- High compressive strength – choose 40 or 60 psi.
- Outstanding moisture resistance gives long-term thermal performance.
- Superior R-value of 5 per inch of product thickness.
- Tough, lightweight panels handle, hoist and install quickly and easily.
- 15-year Owens Corning thermal warranty combines with membrane manufacturers' warranties for assured performance.

#### PRMA Product Solutions

You may already know that extruded polystyrene is the only type of insulation recommended for PRMA applications. Owens Corning offers four specific types of FOAMULAR insulation for this use:

- FOAMULAR 404
- FOAMULAR 604

- FOAMULAR 404 RB – featuring drainage channels
- FOAMULAR 604 RB – featuring drainage channels

While these are superior extruded polystyrene products, it isn't just product excellence itself that causes them to be specified in most PRMA applications. It's also the strong support provided by Owens Corning in system design and installation, as well as rapid product delivery from a national network of manufacturing facilities and distribution centers.

FOAMULAR 404 and FOAMULAR 604 extruded polystyrene insulations are specially designed for use in Protected Roof Membrane Assemblies, where the insulation is placed directly over the membrane. The compressive strength of FOAMULAR insulation provides strong assurance of long-term roofing integrity.

At a minimum of 40 psi compressive strength, FOAMULAR 404 insulation meets the needs of many PRMA applications. For even greater strength, specify the 60 psi compressive strength of FOAMULAR 604 insulation. Both products feature rain channels on all four bottom edges to promote drainage.

#### Physical Properties

Property	ASTM	FOAMULAR 404 Insulation	FOAMULAR 604 Insulation	FOAMULAR 404 RB Insulation	FOAMULAR 604 RB Insulation
R-value* (@ 75 °F mean temp.)	C 518 Modified	10	10	9.5	9.5
Compressive strength <b>minimum</b> (specification) value (lb/in <sup>2</sup> )	D 1621	40.0	60.0	40.0 <sup>†</sup>	60.0 <sup>†</sup>
Water absorption (% by volume max.)	C 272	0.07	0.07	0.07	0.07
Dimensional stability (% linear change max.)	D 2126	2.0	2.0	2.0	2.0
Linear coefficient of thermal expansion (in/in/°F max.)	–	2.7 x 10 <sup>-5</sup>	2.7 x 10 <sup>-5</sup>	2.7 x 10 <sup>-5</sup>	2.7 x 10 <sup>-5</sup>
Flame spread	E 84 <sup>§</sup>	5	5	5	5

\* Based on 2" thickness

† Foam core property; see design load recommendations at right.

§ These laboratory tests are not intended to describe the hazard presented by this material under actual fire conditions.

#### Paved System Solutions

When the designer prefers to place the insulation directly beneath the pavers, FOAMULAR 404 RB and FOAMULAR 604 RB insulation products are the materials of choice. In addition to providing strong support for the PRMA roof, these products offer excellent drainage characteristics. That's because they're manufactured with ribs that are cut the entire length of each panel. Coupled with the standard bottom-side rain channels, the ribs help drain moisture away from the underside of the paver to protect it from freeze/thaw cycle damage.

As a bonus, FOAMULAR 404 RB and FOAMULAR 604 RB insulation products eliminate the need for pedestals beneath the pavers. Result: significant savings in labor and materials.

#### Compliance with Standards

- Underwriters Laboratories, Inc.<sup>®</sup>  
See Classification Certificate U-197
- BOCAI 91-54
- ICBO 3628
- SBCCI PST & ESI 9727

## FOAMULAR Extruded Polystyrene Insulation

# FOAMULAR® 404 & 604 FOAMULAR 404 RB & 604 RB

### Product Data

#### FOAMULAR 404 and 604 Insulation

<b>Material</b>	Extruded polystyrene closed-cell foam panel with continuous skin on face and back surface. FOAMULAR insulation is produced by Owens Corning's patented HYDROVAC® process technology under conditions of strict quality control.
<b>Thermal resistance*</b>	R=5.0 at 75 °F mean temperature and 1" thickness (hr x ft <sup>2</sup> x °F/Btu). (R-value is the resistance of heat flow through a material. The higher the R-value, the greater the insulating power.)
<b>Sizes</b>	1½", 2½", 3", 3½" thick; 2' wide; 8' long.
<b>Edges</b>	Rain-channeled on all bottom edges.
<b>Weight</b>	Approximately 200 lb/1000 ft <sup>2</sup> for 1" thickness.
<b>Packaging</b>	Shipped in units with two stretch-wrap bands per bundle. If long-term storage or exposure to the elements is expected, special packaging can be arranged.

#### FOAMULAR 404 RB and 604 RB Insulation

<b>Material</b>	Extruded polystyrene closed-cell foam panel with drainage ribs cut into top side. FOAMULAR insulation is produced by Owens Corning's patented HYDROVAC process technology under conditions of strict quality control.
<b>Thermal resistance*</b>	R=9.5 at 75 °F mean temperature and 2" thickness (hr x ft <sup>2</sup> x °F/Btu). (R-value is the resistance of heat flow through a material. The higher the R-value, the greater the insulating power.)
<b>Sizes</b>	1½", 2", 3" thick; 2' wide; 8' long.
<b>Edges</b>	Rain-channeled on all bottom edges.
<b>Weight</b>	Approximately 200 lb/1000 ft <sup>2</sup> for 1½" thickness.
<b>Packaging</b>	Shipped in units with two stretch-wrap bands per bundle. If long-term storage or exposure to the elements is expected, special packaging can be arranged.

\*Assuming a linear relationship to the volume of polystyrene lost during fabrication.

#### Maximum Design Load Recommendation, PSF

FOAMULAR Product	Dead Load	Live Load
404	1910	1150
404 RB	1110	660
604	2880	1720
604 RB	1660	1000

#### Properties of Foam Core Meet ASTM C 578

Properties	Type X	Type IV	Type VI	Type VII
FOAMULAR 404 and 404 RB Insulation	✓	✓	•	
FOAMULAR 604 and 604 RB Insulation	✓	✓	✓	•

- Commonly specified
- ✓ Also meets

### There's a FOAMULAR Insulation System for Every Roofing Need

Owens Corning offers a variety of FOAMULAR insulation configurations and the systems support to help you deliver long-term energy savings with a high-quality, low-life-cycle cost roofing system.

- Ballasted membrane systems
- Mechanically attached membrane systems
- PRMA systems
- Tapered roofing systems

Your Owens Corning sales representative can help you access the industry's most complete range of commercial roofing products, systems and application technology.

#### Note

All products and sizes may not be available in all markets. For information about non-standard products, consult a local sales office or representative.

#### Caution

Combustible. FOAMULAR insulation will ignite if exposed to fire of sufficient heat and intensity, although it does contain a flame-retardant additive to inhibit ignition from small fire sources. This product should be installed over a thermal barrier on steel deck, or can be installed directly over concrete roof decks. During shipping, storage, installation and use, this product should not be exposed to open flame or other ignition sources.

### Warranties

#### Thermal Performance Warranty

A 15-year R-value warranty is available, at no extra charge, for all roofing applications. Contact Owens Corning for warranty details.

#### Thermal Overlay Warranty

In PRMA, Owens Corning warrants not only the thermal performance of FOAMULAR insulation, but also the wind performance of the insulation, retention fabric and ballast materials. Contact Owens Corning for warranty program details.



**SYSTEM THINKING**  
Makes the Difference™

#### OWENS CORNING WORLD HEADQUARTERS

ONE OWENS CORNING PARKWAY  
TOLEDO, OHIO 43659

1-800-GET-PINK

www.owenscorning.com

System Thinking™ and System Thinking Makes the Difference™ are trademarks of Owens Corning. © and ™ designate names and products which are trademarks of Owens Corning.

Pub. No. 15-FO-23544 Printed in U.S.A., September 1999 Copyright © 1999 Owens Corning.