



**Exceptional moisture resistance and superior insulation for direct-to-deck application in steel deck roofing systems.**

### No Thermal Barrier Required

THERMAPINK insulation has superior long-term thermal properties compared to polyisocyanurate foam products, and also provides efficiencies during installation. It can be placed over a concrete deck or directly on a non-fire-resistance-rated steel roof deck without the need for a thermal barrier board. For additional details, see Underwriters Laboratories (UL), Inc.<sup>®</sup> Roof Deck Construction #457.\*

### Moisture Resistance

Because of its practically impermeable nature, moisture is not a problem for THERMAPINK insulation. In contrast, polyiso insulation absorbs at least 10 times as much moisture as FOAMULAR extruded polystyrene insulation. In addition, polyiso foam products can lose a significant portion of their R-value over time.

The thermal resistance ratio (%TRR) of polyiso foam degrades to less than the 80% figure that is found acceptable by the Cold Regions Research Lab (CRRL), and it does this in less than 100 days. FOAMULAR insulation maintains a level above 80% even after 1,000 days.

### A Side-by-Side Comparison: FOAMULAR Insulation vs. Polyisocyanurate

	FOAMULAR THERMAPINK Extruded Polystyrene Insulation	Polyisocyanurate Insulation
<b>Initial and long-term R-value</b>	R-value of 5.0 per inch of thickness is maintained over life of product in use	Slightly higher initial R-value but loses up to 20% of resistance over 5 years
<b>Moisture resistance</b>	Very high resistance to water absorption, and low permeability	Low moisture resistance degrades insulating ability; absorbs moisture
<b>Compressive strength</b>	Available with variety of high, stable compressive strengths (18, 25, 40 psi)	Compressive strength of 16 psi; decreases as it absorbs moisture
<b>Installation and handling</b>	Non-friable extruded polystyrene is easy to handle and install	Friability of basic product can lead to handling and installation problems
<b>Surface characteristics</b>	Integral, high density skin permits use without facer; no delamination	Product necessitates facer that can lead to costly delamination problems
<b>Recyclability</b>	Recyclable and reusable	Thermoset plastic; not recyclable
<b>Reusability</b>	Reusable	Not if wet

### Product Data

<b>Material</b>	Extruded polystyrene closed-cell foam panel with continuous skin on face and back surface. FOAMULAR THERMAPINK insulation is produced by Owens Corning's patented HYDROVAC <sup>®</sup> process technology under conditions of strict quality control.
<b>Thermal resistance</b>	R=5.6 at 25°F, R=5.4 at 40°F, 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>	1", 1½", 2", 3" thick; 4' wide, 8' long.
<b>Edges</b>	Square and tongue-and-groove.
<b>Weight</b>	Approx. lb/1,000 ft <sup>2</sup> for 1" thickness: FOAMULAR THERMAPINK 18 insulation, 130 lb; FOAMULAR THERMAPINK 25 insulation, 150 lb; FOAMULAR THERMAPINK 40 insulation, 200 lb.
<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.

### Compliance with Standards

- Underwriters Laboratories, Inc.<sup>®</sup> (See Classification Certificate U-197)
- SBCCI PST & ESI 9727
- Meets HUD (FHA) use of materials Bulletin No. 71 and ASTM C 578

### Thermal Performance Warranty

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

### Architectural Notes

- THERMAPINK insulation should be stored off the ground, protected from direct sunlight with a light-colored polyethylene film and ventilated to prevent excessive temperature build-up.
- Roofs exposed to chemical discharge need special consideration. Contact Owens Corning for information.
- Assemblies should be evaluated for effectiveness and location of vapor retarders to avoid condensation and subsequent damage to the structure (see current ASHRAE Handbook of Fundamentals).

*(continued)*

\* Building codes may vary in different locations. Please check your local code for acceptability of direct to deck application.

## FOAMULAR® Extruded Polystyrene Insulation

# THERMAPINK® Insulation

- THERMAPINK insulation should not be used in direct contact with chimneys, heater vents, steam pipes or other surfaces where temperatures exceed 150°F. When a dark-colored membrane is used without ballast, product should be overlaid with a suitable cover board, such as wood fiber, gypsum or perlite.
- THERMAPINK insulation is recommended for use over concrete or over steel decks. Please consult UL Roof Deck Construction #457 for specific details about using THERMAPINK insulation over steel decks without a thermal barrier, or call your local Owens Corning representative. Note that barrier boards or cover boards may still be needed when designing hourly fire resistance or class A-, B- or C-rated roofing systems. Please consult applicable UL listing. Thermal barriers are not required over concrete or wood decks.

THERMAPINK products are also recommended for use over steel decks when an approved thermal barrier is used between the steel deck and the insulation. See applicable systems directories from Underwriters Laboratories or the Factory Mutual System.

- Some roof membranes, such as PVC, require a slip sheet, such as a glass fiber mat or barrier board, over the insulation.
- A mechanically attached or fully adhered overlayment of wood fiber or perlite board is required over THERMAPINK roof insulation for BUR and torch-applied modified bitumen. When adhering or exposing THERMAPINK insulation to hot bitumen, the bitumen must be allowed to cool to 225-250°F.
- **Important** – Apply only as much FOAMULAR roof insulation as can be covered by roofing materials (roof membrane and ballast) in the same day of installation to prevent its discoloration and damage from heat build-up by excessive exposure to sunlight.

### FOAMULAR THERMAPINK Insulation Physical Properties<sup>(1)</sup>

Property	ASTM Method <sup>(2)</sup>	FOAMULAR THERMAPINK Insulation		
		18	25	40
Thermal conductivity – “k” (BTU x in/°F x ft <sup>2</sup> x h) <sup>(3)</sup>				
@ 75°F mean temperature	C 518	0.20	0.20	0.20
@ 40°F mean temperature		0.18	0.18	0.18
Compressive strength <b>minimum</b> (specification) value (lb/in <sup>2</sup> ) <sup>(4)</sup>	D 1621	18.0	25.0	40.0
Flexural strength (lb/in <sup>2</sup> min.) <sup>(5)</sup>	C 203	60	75	115
Water absorption (% by volume max.) <sup>(6)</sup>	C 272	0.10	0.10	0.05
Water vapor permeance (perm max.) <sup>(7)</sup>	E 96	1.1	1.1	1.1
Water affinity	–	hydrophobic		
Water capillarity	–	none		
Dimensional stability (% linear change max.) <sup>(8)</sup>	D 2126	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>
Flame spread <sup>(9)(10)</sup>	E 84	5	5	5
Smoke developed <sup>(9)(10)(11)</sup>	E 84	45-175	45-175	45-175
Oxygen index min. <sup>(9)</sup>	D 2863	24	24	24
ASTM C 578	–	TYPE X	TYPE IV	TYPE VI

(1) Properties shown are representative values for 1" thick material based upon most recent product quality audit data. (2) Modified as required to meet ASTM C 578. (3) Thermal resistance (R) – (hr x ft<sup>2</sup> x °F/BTU) – of a 1" thickness 5.0 (at 75°F mean temperature), 5.4 (at 40°F mean temperature). (4) Value at yield or 10%, whichever occurs first. (5) Value at yield or 5%, whichever occurs first. (6) Data ranges from 0.00 to value shown or 10% deflection, whichever occurs first. (7) Actual water vapor permeance decreases as thickness increases. (8) Data ranges from 0.0 to value shown. (9) These laboratory tests are not intended to describe the hazard presented by this material under actual fire conditions. (10) Data from Underwriters Laboratories, Inc. Classified. See Classification Certificate U-197. (11) ASTM E 84 is thickness-dependent, therefore a range of values is given.

Owens Corning requires that the roofing membrane and the FOAMULAR tapered insulation be ballasted immediately after placement of the membrane to prevent unnecessary movement of the insulation and the membrane. For more details, please refer to current FOAMULAR roofing literature or contact your local sales representative.

- See FOAMULAR Roofing and Waterproofing Manual for complete roofing and reroofing guide specifications.

#### Note

All products in every size described here may not be available in all geographic markets. For information about non-standard products, consult a local sales 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. During shipping, storage, installation and use, this product should not be exposed to open flame or other ignition sources.



**SYSTEM THINKING**  
Makes the Difference™

#### OWENS CORNING WORLD HEADQUARTERS

ONE OWENS CORNING PARKWAY  
TOLEDO, OHIO 43659

1 - 8 0 0 - G E T - P I N K

www.owenscorning.com

System Thinking™ and System Thinking Makes the Difference™ are trademarks of Owens Corning. The color PINK is a registered trademark of Owens Corning. ® and ™ designate names and products that are trademarks of Owens Corning.