



INNOVATIONS FOR LIVING™

FOAMULAR® Extruded Polystyrene Rigid Foam Insulation High-R CW Plus

Product Data Sheet



Description

When you need superior performance in masonry cavity wall insulation, High-R CW Plus insulation from Owens Corning is your best choice. High-R CW Plus insulation combines the outstanding moisture resistance you have come to expect from extruded polystyrene with superior thermal performance.

As with our standard FOAMULAR products, High-R CW Plus* is a rigid closed cell extruded polystyrene board.

* Patent Pending; Includes U.S. Patent 5,693,130

Thermal Performance

The main advantage of High-R CW Plus insulation over other extruded polystyrene boards is its higher R-Value per inch. An R-Value of 10 can be achieved with just a 1¾" thick board. Standard extruded polystyrene requires a thickness of 2" to achieve an R-10. This gives the designer the opportunity to increase the air gap (thereby decreasing mortar

bridging and improving the cavity performance) while maintaining the same thermal performance as a standard 2" extruded polystyrene board. Additionally, the designer can also choose to increase the thermal performance of the wall assembly by choosing High-R CW Plus insulation with a thickness of 2½". This provides an R-value of 12 with only a slight increase in board thickness.

Product Data

Sizes

Thicknesses (U.S.): 1¾", 2½"
Widths: Precut to 16"
Length: 96"

Not all products are available in all areas. Please check with your local Owens Corning FOAMULAR sales representative for product selection.

Typical Physical Properties¹

High-R CW Plus Extruded Polystyrene Insulation

Property	Test Method ²	Value
Thermal Resistance - "R", minimum (hr x ft ² x F/btu) @ 75°F mean temperature 1¾" Thickness 2½" Thickness	ASTM C 518	R-10 R-12
Compressive Strength, minimum (lb/in ²) ³	ASTM D 1621	25
Water Absorption, maximum (% by volume) ⁴	ASTM C 272	0.10
Water Vapor Permeance, maximum (perm) ⁵	ASTM E 96	1.1
Water Affinity	—	hydrophobic
Water Capillarity	—	none
Dimensional Stability, maximum (% linear change) ⁶	ASTM D 2126	2.0
Flame Spread ^{7,8}	ASTM E 84	10
Smoke Developed ^{7,8,9} 1¾" Thickness 2½" Thickness	ASTM E 84	25 40
Oxygen Index, minimum ⁷	ASTM D 2863	24

¹Properties shown are representative values for 1" thick material based upon most recent product quality audit data unless otherwise noted.

²Modified as required to meet ASTM C 578 (Type IV).

³Value at yield or 10% deflection, whichever occurs first.

⁴Data ranges from 0.00 to value shown due to the level of precision of the test method.

⁵Actual water vapor permeance data decreases as thickness increases.

⁶Data ranges from 0.0 to value shown.

⁷These laboratory tests are not intended to describe the hazard presented by this material under actual fire conditions.

⁸Data from Underwriters Laboratories, Inc.®

⁹ASTM E 84 is thickness dependent. Value provided based on 1¾" High-R CW Plus.

Edges

Square Edge

Packaging

Size	1¾"	2½"
pcs/unit	144	144
pcs/bundle	12	12
bundle/unit	12	12

Standards and Code Compliance

- High-R CW Plus insulation meets ASTM C 578 (Type IV)
- Underwriters Laboratories, Inc.®

For more information on Owens Corning FOAMULAR insulation, contact your Owens Corning sales representative or call: 1-800-GET-PINK.



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Architectural Notes

FOAMULAR products are practical for all buildings having normal temperature conditions but should not be used in contact with chimneys, heater vents, steam pipes or other surfaces where temperatures exceed 165°F.

Caution: Combustible.

FOAMULAR Extruded Polystyrene Rigid Foam 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, the product should not be exposed to open flames or ignition sources.

See “conditions for use” section of ICC ES Report 96-24 for application covering recommendation.

All construction should be evaluated for the necessity of providing appropriate retarders to avoid condensation and subsequent damage to the structure (see current ASHRAE Handbook of Fundamentals).

Some plastic or oil-based adhesives and many solvent-laden mastics are not compatible with polystyrene-based rigid foam insulation. For more information, please contact your local Owens Corning FOAMULAR sales representative.



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