

# FOAMGLAS<sup>®</sup> PERINSUL<sup>®</sup> SIB



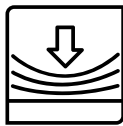
## CELLULAR GLASS STRUCTURAL INSULATING BLOCK

Owens Corning<sup>®</sup> FOAMGLAS<sup>®</sup> PERINSUL<sup>®</sup> SIB Cellular Glass Structural Insulating Block is a long-lasting, high-compressive-strength, rigid insulating block for use in eliminating thermal bridging beneath masonry veneer walls composed of inorganic soda lime glass.

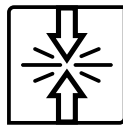
### Features



**WATERPROOF**



**ZERO DEFLECTION**



**HIGH COMPRESSIVE STRENGTH**



**DIMENSIONALLY STABLE**

### Standards, Codes Compliance

- Meets ASTM C1902 Type V

### Applications

- Perimeter Masonry Veneer Walls at Foundation Intersections

### Physical Properties<sup>1</sup>

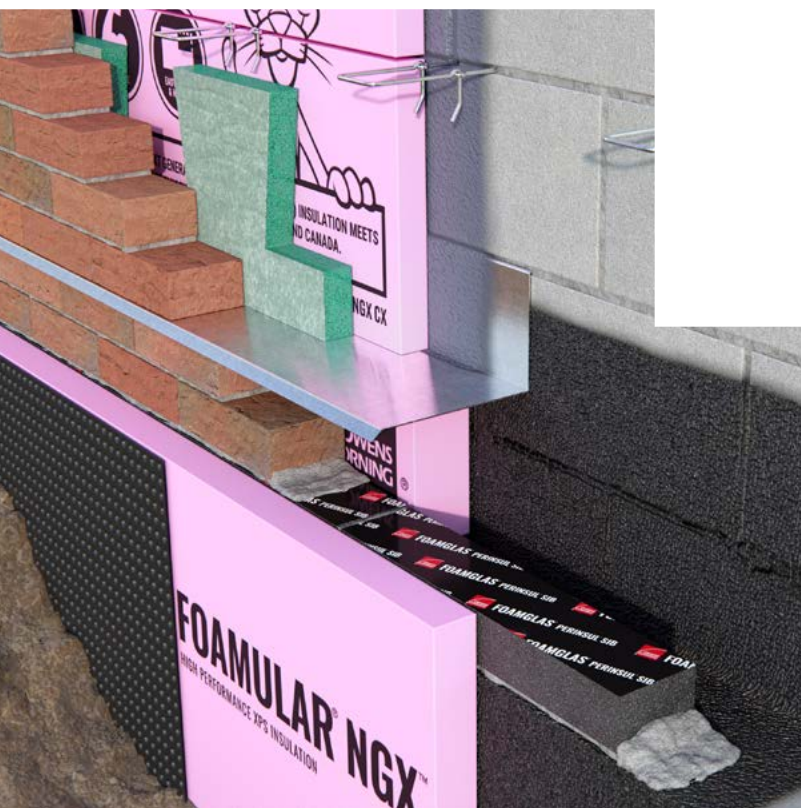
PROPERTY	TEST METHOD <sup>2</sup>	VALUE
Thermal Resistance <sup>3</sup> R-Value/ inch @75°F (24°C) minimum mean temperature, Hr-ft <sup>2</sup> -°F/BTU (m <sup>2</sup> -°C/W)	ASTM C518 /ASTM C177	2.4 (0.42)
		X: 2.8 (0.49)
		Y: 2.4 (0.42)
Compressive Strength minimum (capped), psi (kPa)	ASTM C165/ C240/C552	304 (2100)
Flexural Strength, psi (kPa), minimum	ASTM C203	137 (945)
Dimensional Stability <sup>1</sup> , % maximum @158°F/97% R.H. @ -40°F/Ambient R.H. @200°F/Ambient R.H.	ASTM D2126	1.0
		1.0
		1.0
Density, minimum pcf (kg/m <sup>3</sup> )	ASTM C303	10.6 (170)
Hygroscopicity		No increase in weight at 90% relative humidity
Water Absorption, maximum % by volume	ASTM C240	0.09
Water Vapor Permeability, maximum perm-in (ng/Pa-s-m)	ASTM E96	0.001 (0.001)
Mold/Mildew Resistance	ASTM C1338	Pass
Corrosion Resistance	ASTM C1617	Pass (Steel coupon, less than DI water)
Hydrostatic Resistance, minimum equivalent water height in feet (meters)	ASTM D5385/ C1306	34.5 (10.5)
Linear Thermal Expansion, maximum in/in/°F (mm/mm/°C)	ASTM E228	5.0 x 10 <sup>-6</sup> (9.0 x 10 <sup>-6</sup> )
Combustibility	ASTM E136	Unfaced: Non-combustible
Surface Burning Characteristics, maximum Flame Spread index Smoke Developed index <sup>4</sup>	ASTM E84	0, unfaced <sup>4</sup>
		0, unfaced <sup>4</sup>
		0, unfaced <sup>4</sup>

1 Modified per ASTM C1902.

2 Properties shown are representative values for 1-inch-thick material, unless otherwise specified.

3 R means the resistance to heat flow; the higher the value, the greater the insulation power. This insulation must be installed properly to get the marked R-value. Follow the manufacturer's instructions carefully. If a manufacturer's fact sheet is not provided with the material shipment, request this and review it carefully. R-values vary, depending on many factors, such as direction in which the test is conducted in the case of cellular glass. The U.S. FTC requires the R-value of home insulation to be measured at 75 degrees F mean temperature. R-value claims should always be compared at the same mean temperature. Average horizontal R-value is provided for comparison with other materials as well as minimum R-value in both X and Y (vertical) cross-sectional direction for thermal modeling. Consult the Owens Corning Enclosure Solutions Structural Insulating Block Design Guide.

4 Facing is not rated for flame propagation resistance. PERINSUL<sup>®</sup> SIB as installed with mortar covering the facing, and edge of block exposed should be considered unfaced.



## Technical Information

- Not for use in load-bearing masonry walls.
- For additional information, refer to the Safe Use Instruction Sheet (SUIS) found in the SDS Database via <http://sds.owenscorning.com>.
- FOAMGLAS® PERINSUL® SIB cellular glass insulation is a structural block material to be installed beneath masonry veneers that are adequately braced and meet required construction and service-loading conditions as determined by a licensed engineer or architect of record. See Owens Corning [Enclosure Solutions Structural Insulating Block Design Guide](#).
- FOAMGLAS® PERINSUL® SIB cellular glass insulation should be protected from freeze/thaw exposure by adequate water protection on exposed edges.
- During installation, the facer of FOAMGLAS® PERINSUL® SIB cellular glass insulation may darken as a result of UV exposure to the bitumen adhesive. This does not negatively affect the performance of the product as long as the material is intact and adhered at installation. It is best if the product is covered within 60 days to minimize degradation.
- Do not drill or otherwise attempt to puncture FOAMGLAS® PERINSUL® SIB cellular glass insulation.
- FOAMGLAS® PERINSUL® SIB cellular glass insulation is designed for horizontal orientation. Facers should be installed on the top and bottom of the product, with masonry units bearing evenly across the entire surface with no cantilevering or point loading. First course of masonry above PERINSUL® SIB should be solid block with no holes. Do not install in vertical orientation. See Enclosure Solutions Structural Insulating Block Design Guide.
- All construction should be evaluated for the necessity to provide vapor retarders. See current ASHRAE Handbook of Fundamentals.

## Product and Packaging Data

TYPICAL MASONRY UNIT SIZE	THICKNESS X WIDTH X LENGTH (IN)	PIECES PER BOX	LINEAL FEET PER BOX
Standard/Normal	2.25 x 3.63 x 17.717 to 17.72	24	35.4
Jumbo	2.75 x 3.63 x 17.717 to 17.72	20	29.5
Economy	3.63 x 3.63 x 17.717 to 17.72	16	23.6

## Environmental and Sustainability

Owens Corning is a worldwide leader in building material systems, insulation, and composite solutions, delivering a broad range of high-quality products and services. Owens Corning is committed to driving sustainability by delivering solutions, transforming markets, and enhancing lives. More information can be found at [www.owenscorning.com](http://www.owenscorning.com).

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