

OPCORE-G™ Physical Properties

Nominal Rigid Foam Density in lbs/cubic foot

Property	Method	Units	0.90	1.00	1.15	1.35	1.45	1.80
Sustainability / Environmental	<i>Opco and BASF Corporation</i>		Recyclable as #6 Plastic. Can reduce carbon emissions as a result of lower energy load for heating and cooling buildings. Can contain recycled content per specification. Retains R-value over time. Does not contain chlorofluorocarbons. UL GreenGuard Gold Certified for Indoor Air Quality. Material expansion agent has zero ozone depletion potential.					
ASTM C578 Classification ⁽¹⁾	<i>ASTM C578</i>	Type	I	I	VIII	II	II +	IV
ICC-ES ESR ⁽²⁾			ICC-ES ESR available at www.opcodirect.com/library					
Compressive Resistance	<i>ASTM D1621</i>	at yield of 10% deformation in psi (kPa)	10 (69)	10 (69)	14 (97)	15 (103)	20 (138)	25 (172)
Thermal Resistance (R-value*), 75F ⁽³⁾	<i>ASTM C518</i>	°F•ft ² •h/BTU (K•m ² /W) 75 ±2°F (23.9 ±1°C)	5.0					
Thermal Resistance (R-value*), 40F ⁽³⁾	<i>ASTM C518</i>	°F•ft ² •h/BTU (K•m ² /W) 40 ±2°F (4.4 ±1°C)	5.2			5.3		
Thermal Resistance (R-value*), 25F ⁽³⁾	<i>ASTM C518</i>	°F•ft ² •h/BTU (K•m ² /W) 25 ±2°F (-3.9 ±1°C)	5.4			5.5		
Flexural Strength	<i>ASTM C203</i>	psi (kPa)	25 (172)	25 (172)	32 (221)	39 (269)	40 (276)	50 (345)
Water Vapor Permeance ⁽⁴⁾	<i>ASTM E96</i>	For 1" (25.4 mm), perm (ng/PA•s•m ²), max	4.0		3.1			2.5
Water Absorption by Total Immersion	<i>ASTM C272</i>	Volume % absorbed, max	1.1					
Dimensional Stability	<i>ASTM D2126</i>	max % linear change	< 1.5					
Oxygen Index	<i>ASTM D2863</i>	volume %	> 24					
Surface Burning Characteristics	<i>ASTM E-84 or UL 723</i>	Flame Spread / Smoke Developed	Flame Spread 5, Smoke Developed 25					
Biological Behavior			Will not support growth of mold or mildew. No harmful effects on health known.					
Chemical Resistance			Insensitive to water, the majority of acids and alkalis. Sensitive to organic solvents.					
Application Limiting Temperature		° F / ° C	165 (73.9) nominal / 180 (82.2) max					

⁽¹⁾ OPCORE-G made of NEOPOR meets and/or exceeds ASTM C578-14 "Standard Specification For Preformed, Cellular Polystyrene Insulation"; published by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959.

⁽²⁾ OPCORE-G rigid thermal insulation foam, and its use and application requirements per building code, are described in ICC-ES ESR 3463 available at www.opcodirect.com/library and from ICC-ES.

⁽³⁾ R-value means resistance to heat flow. The higher the R-value, the greater the insulating power. Ask your seller for the fact sheet on OPCORE-G R-values. The R-value properties are based on 1-1/16 in thickness.

⁽⁴⁾ Values quoted are maximum values for 1 inch (25mm) thick samples and are based upon most recent raw material product quality audit data. Actual water vapor permeance data decreases as thickness increases. Where water vapor permeance is a design concern, use of the product is subject to professional engineering review at the specifiers option. Values are from data provided by BASF AG for NEOPOR F5300 PLUS.

The physical property data shown above are presented as typical average values as determined by industry accepted and standard test methods, except where noted, and may vary with normal manufacturing variation. Evaluation of applicability for your application is recommended.



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Structural Insulated Panel Association

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