

OPCORE®

Recyclable
Thermal Insulation



Rigid Thermal Insulation

Learn more about rigid thermal insulation
products made of OPCORE® at
www.opcodirect.com





Recyclable
Thermal Insulation



OPCORE is Rigid Thermal Insulation, done right.

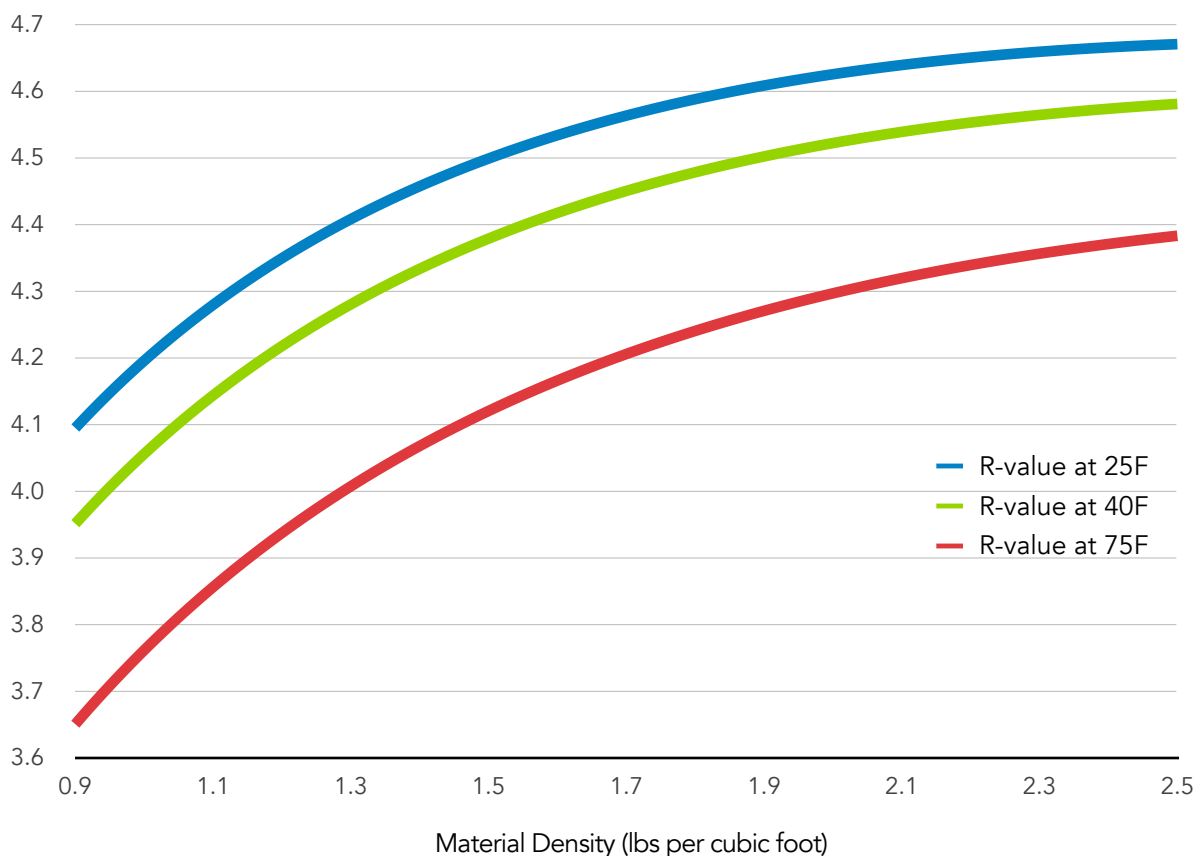
3rd Party
Recognized
'Meet or Exceed Code'
Rigid Thermal Insulation
Performance



OPCORE performs petter when it's colder and those curves on the graph stay real close to the R-values you see on the chart, for just-installed insulation. That's important because it means your not paying more every year becuae your insulation is losing it's power.

OPCORE is made of small pockets of air surrounded by a recyclable polymer matrix. This means the R-value of the material is stable over time.

Chart illustrates R-value per inch of thickness as a function of density and temperature, measured in accordance with ASTM Test Method C518. R-values can be higher than the minimum R-value for a given ASTM C-578 'Type' because ASTM C-578 Types specify a minimum R-value.





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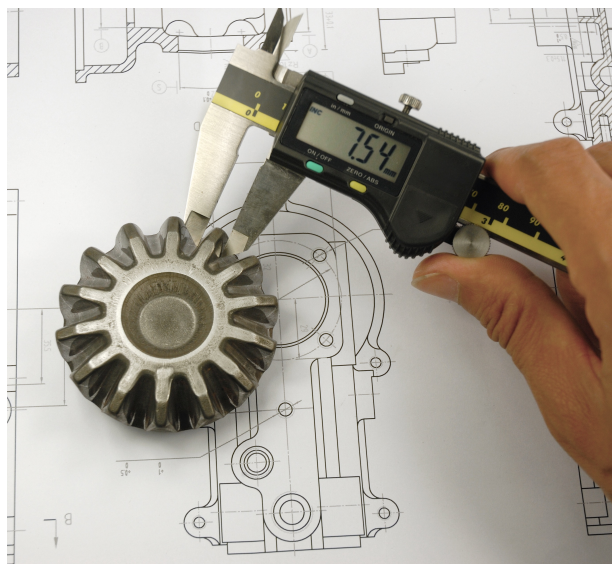
Expecting Rain?

OPCORE plays well with Moisture Vapor and Bulk Water

Water and moisture are ever-present, so managing their presence is paramount to a building's longevity. OPCORE can keep bulk water on the outside. Greater water vapor permeability can help reduce the risk of vapor condensation inside the wall.

A Decades-Long Stable R-value is just the beginning of OPCORE's Sustainability Story

- OPCORE is recyclable as a #6 polymer compound
- Reduces use of resources in the manufacture, transportation and use of more dense insulation products
- Comprised of up to 98% air
- Contains no ozone-depleting CFC's, HCFC's, HFC's, nor formaldehyde
- Combination of recyclable polymer matrix and air enables the material to exhibit a long-term stable R-value



Dimensional Accuracy & Consistency means you get a Superior Thermal Envelope

Quality matters. OPCORE meets stringent performance and quality certifications. OPCORE can be sized to your specifications using proprietary processes. Thickness, length and width dimensions can be specified accurate to 1/16 of an inch on dimensions between 4" and 96". This means fewer problems during installation and a more consistent thermal envelope.

Metric	Thickness	Length	Width
Tolerance (in/in)	1/16"	1/16"	1/16"
Range	1/2" < t < 48"	1/2" < l < 216"	1/2" < w < 36"



High Quality EPS Rigid Foam

Physical Property	Method	Units	Material Property Values					
Density, nominal	ASTM C303	lbs / ft ²	1.00	1.25	1.50	2.00	2.50	3.00
Density, minimum	ASTM C303	lbs / ft ²	0.90	1.15	1.35	1.80	2.40	3.00
Sustainability / Environmental	Summarized conclusions from scientific experiments in the public domain or product specification.	<ul style="list-style-type: none"> • Recyclable as #6 Plastic. • Can reduce carbon emissions by lowering energy needed to heat or cooling buildings, or refrigerate package contents. • 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⁾	ASTM C578	Type	I	VIII	II	IX	XIV	XV
Compressive Resistance	ASTM D1621	at yield or 10% deformation, psi (kPa)	10 (69)	13 (90)	15 (104)	25 (173)	40 (276)	60 (414)
Thermal Resistance (R-value*), 75F ⁽²⁾	ASTM C518	°F·ft ² ·h/BTU (K·m ² /W) 75 ±2°F (23.9 ±1°C)	3.85	3.92	4.17	4.35	4.50	4.60
Thermal Resistance (R-value*), 40F ⁽²⁾	ASTM C518	°F·ft ² ·h/BTU (K·m ² /W) 40 ±2°F (4.4 ±1°C)	4.17	4.25	4.55	4.76	4.85	5.05
Thermal Resistance (R-value*), 25F ⁽²⁾	ASTM C518	°F·ft ² ·h/BTU (K·m ² /W) 25 ±2°F (-3.9 ±1°C)	4.35	4.55	4.76	5.00	5.05	5.10
Flexural Strength	ASTM C203	psi (kPa)	25 (173)	30 (208)	35 (242)	50 (345)	60 (414)	75 (517)
Water Vapor Permeance ⁽³⁾	ASTM E96	For 1" (25.4 mm), perm (ng/PA·s·m ²), max	5.0	3.5	3.5	2.5	2.5	2.5
Water Absorption by Total Immersion	ASTM C272	Volume % absorbed, max	4.0	3.0	3.0	2.0	2.0	2.0
Dimensional Stability	ASTM D2126	max % linear change	< 2.0					
Oxygen Index	ASTM D2863	min, volume %	> 24					
Surface Burning Characteristics	ASTM E-84 or UL 723	Flame Spread / Smoke Developed	Flame Spread <25, Smoke Developed <450					
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 meets and/or exceeds ASTM C578-11b "Standard Specification For Preformed, Cellular Polystyrene Insulation"; published by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959.

⁽²⁾ R-value means resistance to heat flow. The higher the R-value, the greater the insulating power. Ask your seller for help with sizing. The R-value properties shown are based on 1 in thickness.

⁽³⁾ 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.

The higher the R-value, the greater the insulating power. 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 are subject to normal manufacturing variation. ASTM specifications shown are typical for rigid, cellular polystyrene thermal insulation and are published by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959.



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SERVICE®



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