



FIBERGLAS™ FABRICATION BOARD

The Owens Corning Fiberglas™ Fabrication Board Insulation is made of inorganic glass fibers with a thermosetting resin binder formed into rigid rectangular boards. The boards are used for the fabrication of insulation fittings, precision cut pipe, v-groove board, and pipe & tank wrap insulation. It conserves energy, maintains process temperatures, provides personnel protection, helps prevent condensation, and reduces noise emission and transmission.

Features

- Easily fabricated
- Heavy density and rigid board provide for solid fabricated parts.
- Excellent thermal performance and resiliency
- Dimensionally stable
- Noncorrosive to steel, copper, and aluminum per ASTM testing.
- High compressive strength in thickness direction and even more when rotated 90 degrees such as for the fabrication of pipe and tank
- Maximum temperature of 850°F when rotated 90 degrees in the fabrication and 450°F in the standard thickness direction

Standards, Codes Compliance

- ASTM C612, Mineral Fiber Block and Board Thermal Insulation, Types IA, IB – Standard thickness direction
- ASTM C1393 Perpendicularly Oriented Mineral Fiber Roll and Sheet Thermal Insulation for Pipes and Tank Types I, II, IIIA, and IIIB – Rotated 90 Degrees
- ASTM C795, Thermal Insulation for Use Over Austenitic Stainless Steel¹
- Nuclear Regulatory Commission Guide 1.36, Non-Metallic Thermal Insulation
- Does not contain the fire retardant decabrominated diphenyl ether (decaBDE)
- NFPA 90A and 90B

¹ Preproduction qualification testing complete and on file. Chemical analysis of each production lot required for total conformance. Certification needs to be specified at time of order.

Applications

Fabrication Board can be used as is in industrial applications as it provides an option between the 703 and 705 products. Most generally, Fabrication Board is used in the fabrication of insulation fittings, cut pipe, v-groove pipe, and fabricated pipe and tank insulation.

Physical Properties

PROPERTY	TEST METHOD	VALUE
Added Density	ASTM C303	4.5pcf (72 kg/m ³)
Operating Temperature Range ³	ASTM C411	Board Thickness Direction 0 to 450°F (-18 to 232°C) Board Rotated 90 Degrees 0 to 850°F (-18 to 454°C)
Water Vapor Sorption	ASTM C1104	<5% by weight at 120°F (49°C), 95% R.H.
Fungi Resistance	ASTM C1338	Meets requirements
Odor Emission	ASTM C1304	Meets requirements
Linear Shrinkage	ASTM C356	<2% at maximum use temperature
Compressive Strength (minimum) at 10% deformation at 25% deformation	ASTM C165	Board Thickness Direction 245 lb./ft ² (11.7 kPa) 575 lb./ft ² (27.5 kPa) Board Rotated 90 Degrees 1,500 lb./ft ² (71.8 kPa) N/A
CORROSION RESISTANCE	TEST METHOD	VALUE
Corrosion to Steel	ASTM C1617	Pass – steel
Stress Corrosion Evaluation on external stress corrosion cracking tendency of austenitic stainless steel	ASTM C795 and ASTM C692 ²	Pass
Chemical Analysis for Cl ⁻ , Fl ⁻ , Na ⁺ , SiO ₃	ASTM C795 and ASTM C871 ²	Results within acceptability limits
FIRE	TEST METHOD	VALUE
Surface Burning Characteristics ³	UL 723, ASTM E84, and CAN/ULC S102	Faced Flame Spread Index 25 Smoke Developed Index 50 Unfaced Flame Spread Index 5 Smoke Developed Index 5

² Maximum thickness of 4" (102 mm).

³ The surface burning characteristics of these products have been determined in accordance with UL 723, ASTM E84, and CAN/ULC-S102. Values are reported to the nearest 5 rating.

Thermal Conductivity

MEAN TEMP °F	K BTU • IN/HR • FT2 • °F		MEAN TEMP °C	Λ W/M • °C	
	THICKNESS DIRECTION	ROTATED 90 DEGREES		THICKNESS DIRECTION	ROTATED 90 DEGREES
25	0.20	0.28	10	0.030	0.042
75	0.22	0.30	25	0.033	0.043
100	0.24	0.31	50	0.036	0.046
200	0.30	0.36	100	0.044	0.053
300	0.37	0.43	150	0.053	0.062
400	0.44	0.53	200	0.063	0.076
500	0.53	0.69	250	0.074	0.094

R-Values at 75°F Mean

PRODUCT ORIENTATION	NOMINAL R-VALUE AT THICKNESS			
	1.5-IN.	2-IN.	2.5-IN.	3-IN.
Thickness Direction	6.8	9.1	11.4	13.4
Rotated 90 Degrees	5.0	6.7	8.3	10.0

To determine R-value at other thickness or other temperatures on the Thermal Conductive Table above, use the following calculation:

R-Value = Thickness/k-value

Availability

The Fiberglas™ Fabrication Board is available in boards 36" x 48" in thicknesses from 1.5" to 4".⁴

⁴ Minimum order requirements and lead-times contingent upon size. Contact your local area sales manager for details.

Certifications and Sustainable Features

- Certified by SCS Global Services to contain an average of 53% recycled glass content, 31% pre-consumer, and 22% post-consumer.
- Environmental Product Declaration (EPD) has been certified by SCS Global Services. This product is found in the EPD for 700 Series Products.
- Health Product Declaration® (HPD). This product is found in the HPD for 700 Series Products.



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.

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For more information, visit www.SCSglobalservices.com.

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