

Product Data Sheet



Description

Fiberglas™ Insul-Quick[®] Insulation is a lightweight insulation composed of glass fibers bonded together in a semi-rigid, boardlike form with a special high temperature binder.

Key Features

- Thermal efficiency helps conserve energy and lower costly heat loss.
- Easy to handle and install, even when large size boards are used and won't crumble or break during installation.
- Resists tearing and pulling apart, which contributes to excellent long-term installed thermal performance.
- Boards in sizes to 4' by 8' (1.2m x 2.4m) help reduce the number of joints, speeding installation and eliminating potential sources of heat leakage.

Product Applications

Fiberglas™ Insul-Quick[®] Insulation is designed for use on power and process boilers, breechings, ducts, precipitators, chimney liners and other heated equipment operating at temperatures up to 850°F (454°C). It is used in applications where an outside facing of metal or

Availability

Sizes, in. (m)		Thickness, in. (mm)
24 x 48	(0.6 x 1.2)	1 through 4 (25 through 102)
36 x 48	(0.9 x 1.2)	in ½ (13) increments
48 x 48	(1.2 x 1.2)	

Physical Property Data

Property	Test Method	Value
Hot Surface Performance	ASTM C411	Up to 850°F (454°C) Maximum thickness 6" (152 mm) Up to 650°F (343°C) Maximum thickness 8" (203 mm)
Compressive Strength at 10% Deformation at 20% Deformation	ASTM C165	90 lb/ft ² (4309 Pa) 130 lb/ft ² (6225 Pa)
Nominal Density	ASTM C303	3.0 pcf (48 kg/m ³)
Water Vapor Sorption	ASTM C1104	< 2.0% by weight, at 120°F (49°C), 95% R.H.
Shot Content	ASTM C1335	Negligible
Composite Surface Burning Characteristics ¹ Flame Spread Smoke Developed	UL 723, ASTM E84 or CAN/ULC-S102	25 50

1. The surface burning characteristics of these products have been determined in accordance with UL 723, ASTM E84 or CAN/ULC-S102. This standard should be used to measure and describe the properties of materials, products or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use. Values are reported to the nearest 5 rating.

metal mesh with a finishing cement is required. It can also be used as insulation in a metal panel system.

Fiberglas™ Insul-Quick[®] Insulation is used in panel systems. It is secured to the panel using pins and clips with metal mesh. Panels can be erected flush to heated surfaces or away from them and secured to buckstays or breeching and ductwork angle iron stiffeners.

Fiberglas™ Insul-Quick[®] Insulation can be installed directly to hot, flat or curved surfaces. It can be attached using welded pins or studs and finished with sheet metal; or using metal mesh and insulating cement, then canvassed and painted. Pins with speed washers or studs and nuts should be installed on 12" (300mm) x 18" (450mm) (approx.) centers and the insulation impaled over them. The sheet metal or metal mesh is secured to the same fasteners. Joints of the

sheet metal are offset from joints of the insulation.

For temperatures over 400°F (204°C), good practice suggests double layer application, regardless of insulation type. Single layer installation requires good workmanship to minimize heat loss and hot spots at insulation joints.

Fiberglas™ Insul-Quick[®] Insulation may be installed in either single or multiple layers up to a maximum of 6" (152mm) at all temperatures up to 850°F (454°C), or to a maximum of 8" (203mm) at temperatures not over 650°F (343°C).

Standards, Codes Compliance

- ASTM C612, Mineral Fiber Block & Board Thermal Insulation, Types IA, IB, II
- ASTM C795, Thermal Insulation for Use Over Austenitic Stainless Steel²



INNOVATIONS FOR LIVING®

Fiberglas™ Insul-Quick® Insulation

Product Data Sheet

- Nuclear Regulatory Commission Guide 1.36, Non-Metallic Thermal Insulation²
- U. S. Coast Guard Approval No. 164.109, Noncombustible Materials
- CAN/CGSB-51.10 – Type I, Class I

Certifications and Sustainable Features of Fiberglas™ Insul-Quick® Insulation

- Certified by Scientific Certification Systems to contain a minimum of 57% recycled glass content

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.sustainability.owenscorning.com.

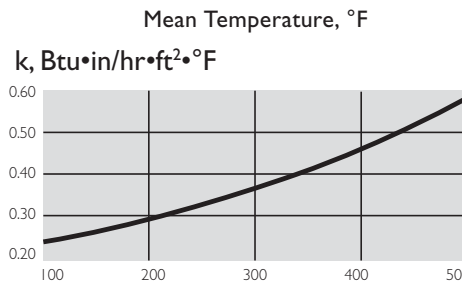
2. Preproduction qualification testing complete and on file. Chemical analysis of each production lot required for total conformance.

Thermal Performance, ASTM C680

Thickness, in. (mm)	Operating Temperature, °F (°C)									
	450 (232)		550 (288)		650 (343)		750 (399)		850 (454)	
	HL	ST	HL	ST	HL	ST	HL	ST	HL	ST
1 (25)	106	179	154	213	213	251	285	294	372	341
2 (51)	58	141	84	162	117	187	156	214	203	245
3 (76)	40	125	58	141	80	159	107	180	140	203
4 (102)	31	116	44	129	61	144	82	160	107	179
5 (127)	25	110	36	121	50	134	66	148	86	164
6 (152)	21	106	30	116	42	126	56	139	72	153
7 (178)	18	103	26	112	36	121	48	132		
8 (203)	16	101	23	108	32	117	42	127		

The above table provides approximate heat loss values (HL), Btu/hr•ft², and Surface Temperatures (ST), °F, for flat surfaces. Values are based on horizontal heat flow, vertical flat surface, 80°F ambient temperature, still air, weathered aluminum jacket. To convert heat loss values to W/m², multiply values by 3.15. To convert surface temperatures, use the formula: °C=(°F-32) 1.8.

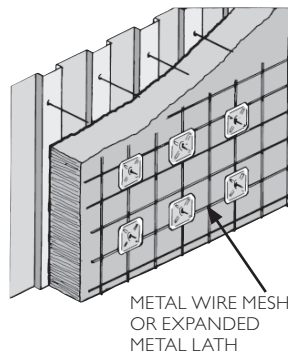
Thermal Conductivity



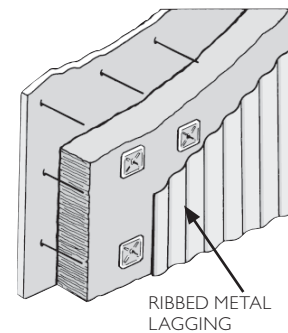
Mean Temp. °F	k Btu•in/hr•ft ² •°F	Mean Temp. °C	λ W/m•°C
75	0.23	25	0.033
100	0.24	50	0.037
200	0.30	100	0.045
300	0.37	150	0.054
400	0.46	200	0.066
500	0.58	250	0.081

Apparent thermal conductivity curve determined in accordance with ASTM Practice C1045 with data obtained by ASTM Test Method C177. Values are nominal, subject to normal testing and manufacturing tolerances.

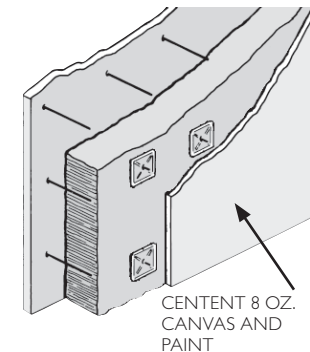
PANEL CONSTRUCTION



FLUSH APPLICATION – METAL LAGGING



FLUSH APPLICATION – CANVASSED, PAINTED



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