Fiberglas™ Insul-Quick®
Fiberglass Insulation

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.

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

Physical Properties

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/ft² (4309 Pa) 130 lb/ft² (6225 Pa)
Nominal Density	ASTM C303	3.0 pcf (48 kg/m³)
Water Vapor Sorption	ASTM C1104	< 2.0% by weight, at 120°F (49°C), 95% R.H.
Surface Burning Characteristics[1]	UL 723, ASTM E84 or CAN/ULC-S102	Flame Spread < 25 Smoke Developed < 50

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

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 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
- MIL-DTL-32585, Insulation, Thermal and Acoustic, Fibrous Glass; Type I and II; Form 1; Facing A
- MIL-I-742F Insulation Board, Thermal, Fibrous Glass; Type II
- MIL-DTL-I-24244D (Ships) Insulation Material with Special Corrosion, Chloride, and Fluoride Requirements[2]; Type XVI
- ASTM C795, Thermal Insulation for Use Over Austenitic Stainless Steel
- Nuclear Regulatory Commission Guide 1.36, Non-Metallic Thermal Insulation[2]
- U.S. Coast Guard Approval No. 164.109, Noncombustible Materials
- CAN/CGSB-51.10–Type 1, Class 1

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

Thermal Conductivity

Mean Temperature °F	k Btu•in/hr•ft²•°F	Mean Temperature °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

Values are nominal, subject to normal testing and manufacturing tolerances.

Thermal Performance, ASTM C680

Thickness,		Operating Temperature, °F (°C)									
		450 (232)		550 (288)		650 (343)		750 (399)		850 (454)	
in.	(mm)	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		

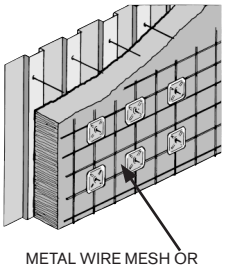
The above table provides approximate heat loss values (HL), Btu/hr•ft², and Surface Temperatures (ST), °F, for flat surfaces. Values are based on horizontal heat flow, vertical flat surface, 80°F ambient temperature, still air, weathered aluminum jacket. To convert heat loss values to W/m², multiply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

Availability

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

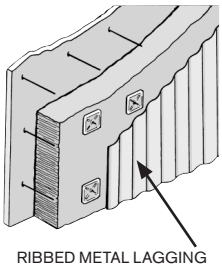
Select additional sizes available

PANEL CONSTRUCTION



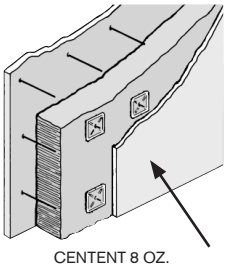
METAL WIRE MESH OR EXPANDED METAL LATH

FLUSH APPLICATION – METAL LAGGING



RIBBED METAL LAGGING

FLUSH APPLICATION – CANVASSED, PAINTED



CENTENT 8 OZ. CANVAS AND PAINT

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.

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

CERTIFIED RECYCLED CONTENT™ SCS GLOBAL SERVICES

AVERAGE 53% RECYCLED CONTENT
31% PRE-CONSUMER
22% POST-CONSUMER

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OWENS CORNING INSULATING SYSTEMS, LLC
ONE OWENS CORNING PARKWAY
TOLEDO, OHIO, USA 43659

1-800-GET-PINK®
www.owenscorning.com

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