



Industrial Insulation Group, LLC

A Calsilite/Johns Manville Joint Venture

Fire Protection Systems

Super Firetemp® M High Temperature Insulation

Description

Super Firetemp® M is an inorganic, incombustible material. Chemically, Super Firetemp M features a Xonotlite crystal structure that results in exceptional strength and extremely low water of hydration. Super Firetemp M is composed primarily of lime, silica and reinforcing fibers. The product is white, essentially dust-free, and contains no asbestos, mercury or lead.

Applications

Since Super Firetemp M possesses both exceptional strength and insulation qualities, it can be readily machined into component parts of many sizes and shapes. Uses include fire-rated enclosures around structural steel, fire-rated walls, and pipe supports.

Available Forms

Thickness 1/2", 3/4", 1", 1 1/2", 2", 2 1/2", 3" (13,19, 25, 38, 51, 64, 76 mm)
Sheet Size 4' x 8' (1.22m x 2.44m)
Super Firetemp M is available with a sanded finish on both sides. The sanded surfaces are smooth and easy to machine.

Dimension Tolerances

Length and Width +/- 1/8" (3 mm)
Thickness +/- 1/16" (4 mm)

Additional Information and MSDS

Technical information and MSDS available at www.iig-llc.com



Physical Properties

Density (Average) 28 pcf (449 kg/m³)
Maximum Recommended Continuous Service Temperature 1800°F (982°C)
Flexural Strength 550 psi (3,792 kPa)
Compressive Strength @ 10% Deformation 900 psi (6,206 kPa)
Moisture Content, Normal Percentage of Dry Weight 4

Standard Sizes

Thickness* . . . 1/2", 3/4", 1", 1 1/2", 2", 2 1/2", 3" (13,19, 25, 38, 51, 64, 76 mm)
Sheet Size 4' x 8' (1.22 m x 2.44 m)
Dimensional Tolerances
Length and Width ± 1/8" (3 mm)
Thickness ± 1/32" (0.8 mm)

* Other thicknesses available upon request.

Specification Compliance

ASTM C 656, Type II Grade 6
ASTM C 795 Passes
ASTM E 72 Passes
ASTM E 84: Flame Spread/Smoke Developed 0/0
ASTM E 136 Noncombustible
ASTM E 119 1, 2, 3, 4 Hours
ASTM E 814 Passes
UL 263 1, 2, 3, 4 Hours
UL 1479 3 Hours
UL 1709 1, 2, 3, 4 Hours
NFPA 251 1, 2, 3, 4 Hours
Underwriters' Laboratories, Inc.
Design Numbers U328, U446, U447, X307, XR301
UL Canada Design Numbers W420, W421, W422, Z200, Z202
UBC Minimum Thickness

Linear Shrinkage After 24 Hours At Temperature, %

Temperature °F (°C)	Length	Width	Thickness	Weight Loss
1700 (927)	0.9	0.9	2.3	9.7

Thermal Conductivity ("k")

Mean Temperature		"k"	
°F	°C	Btu • in/(hr • ft² • °F)	W/m • °C
200	93	.61	0.088
400	204	.66	0.095
600	316	.73	0.105
800	427	.80	0.115

Super Firetemp® M

High Temperature Insulation

Code Compliance

Super Firetemp undergoes stringent tests to comply with some of the toughest fire codes in the U.S. and Canada.



ISO 9001 Registration

Super Firetemp M is manufactured, under an ISO 9001:2000 registered quality system. This registration, along with regular independent third-party auditing for compliance, is your assurance that all our products deliver consistently high quality.

Typical Ratings for Super Firetemp® M

Use this table to estimate the thickness of Super Firetemp M. The table represents the most common applications. More specific information is available from IIG. For Structural Steel fire protection, use Super Firetemp L unless the product is going to be exposed to physical abuse such as warehouses, then use Super Firetemp M.

Thickness Required for Structural Steel (E119)

	1hr	2hr	3hr	4hr
TS 4 x 4 x 3/16	1"	2"	3"	4"
TS 8 x 8 x 1/4	1"	1½"	2½"	3½"
W 4 x 13	¾"	1½"	2½"	3½"
W 10 x 49	¾"	1½"	2"	2½"
W 14 x 228		½"	¾"	1"

Thickness of Super Firetemp M for Cable Trays and Raceways

	15 min	30 min	45 min
E119		1"	1½"
UL 1709	1"	1½"	

Thickness Required for Structural Steel (UL1709)

	1hr	2hr	3hr	4hr
TS 4 x 4 x 3/16	1½"	2½"	3½"	4½"
TS 8 x 8 x 1/4	1"	2"	3"	4"
W 4 x 13	1"	2"	3"	4"
W 10 x 49	¾"	1½"	2"	2½"
W 14 x 228		½"	¾"	1"

Wall Ratings

1 hr	2 in.
1½ hr	2½ in.
2 hr	3 in.
2½ hr	4 in.
3 hr	4 in.
4 hr	5 in.
5 hr	5½ in.

For technical information and assistance regarding application information, code approvals, and performance specifications, call **1-800-872-0338**.

For Customer Service and Order Placement
 (800) 525-0017
 Fax: (970) 858-6248

For Sales Information
 (800) 866-3234
 Fax: (866) 325-8180

For Technical Information
 (800) 872-0338
 Fax: (866) 384-9338



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The physical and chemical properties of the Super Firetemp® M presented herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the Customer Service Office to assure current information. **All Industrial Insulation Group products are sold subject to the IIG Limited Warranty and Limitation of Remedy. For a copy of the IIG Limited Warranty and Limitation of Remedy, email - info@iig-llc.com.**

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