



Industrial Insulation Group, LLC

A Calsilite/Johns Manville Joint Venture

Fire Protection Systems

Super Firetemp® L High Temperature Insulation

Description

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

Applications

Super Firetemp L has high strength as well as exceptional insulation qualities. It can be readily machined into component parts of many sizes and shapes. Uses include fire-rated enclosures around structural steel, tanks, equipment and fire-rated walls.

Available Forms

Thickness 3/4", 1", 1 1/2", 2", 2 1/2", 3" (19, 25, 38, 51, 64, 76 mm)
Sheet Size 4' x 4' (1.22m x 1.22m)
4' x 8' (1.22m x 2.44m)

Super Firetemp L is available with a sanded finish on one or 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



Thermal Conductivity ("k")

| Mean Temperature | | "k" | |
|------------------|-----|--------------------|--------|
| °F | °C | Btu-in/(hr-ft²-°F) | W/m-°C |
| 200 | 93 | 0.54 | 0.078 |
| 400 | 204 | 0.61 | 0.088 |
| 600 | 315 | 0.67 | 0.097 |
| 800 | 427 | 0.73 | 0.105 |

Specification Compliance

- ASTM C 656 Type II, Grade 5
- ASTM C 795 Passes
- ASTM E 72 Passes
- ASTM E 119 1,2,3,4 Hours
- UL 263 1,2,3,4 Hours
- NFPA 251 1,2,3,4 Hours
- ASTM E 84
 - Flame Spread/Smoke Developed 0/0
- ASTM E 136 Noncombustible
- ASTM E 814 2 Hours
- UL 1479 3 Hours
- UL 1709 1,2,3,4 Hours
- Underwriters Laboratories, Inc.
 - Design Numbers U328,U446,X307,XR301
- Underwriters Laboratories Canada
 - Design Numbers W420,W421,W422,Z200,Z202
- Omega Point Laboratories
 - Design Number GD 515 R

Physical Properties

- Density (Avg.) 18 pcf (288 kg/m³)
- Maximum Recommended Continuous
 - Service Temperature 1800°F (982°C)
- Flexural Strength (Avg.) 260 psi (1793 kPa)
- Compressive Strength
 - @10% deformation (Avg.) 450 psi (3103 kPa)
- Moisture Content, Normal Percentage
 - of Dry Weight (Avg.) 4%

Linear Shrinkage After 24 Hours at Temperature

- Temperature 1700°F (927°C)
- Length 1%
- Width 1%
- Thickness 2.1%
- Weight Loss 10%

Super Firetemp® L

High Temperature Insulation

Code Compliance

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



ISO 9001 Registration

Super Firetemp L 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® L

Use this table to estimate the thickness of Super Firetemp L. 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" |

Wall Ratings

| | |
|------------|--------|
| 1 hr..... | 2½ in. |
| 1½ hr..... | 3 in. |
| 2 hr..... | 3½ in. |
| 3 hr..... | 4½ in. |
| 4 hr..... | 5½ in. |
| 5 hr..... | 6 in. |

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" |

For technical information, 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® L 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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