

## SUPER FIRETEMP® X

Super Firetemp X is an inorganic, non-combustible, high-temperature insulation for use in industrial equipment and building systems. It can be used on systems operating up to 1700°F (927°C) Composed primarily of lime, silica and reinforcing fibers. This product is white, essentially dust-free, and contains no asbestos.

### ADVANTAGES

- Assured Fire Resistance
- Durable
- Economical

### APPLICATIONS

Super Firetemp X has high strength as well as exceptional insulation qualities. It can be readily machined into component parts of many sizes and shapes. Uses include oven and furnace walls, structural supports, against the shell of steel ladles and torpedo cars, behind the refractory brick and ramming castable of trundages to help keep the metal at a higher temperature and protect against thermal spalling of the refractory brick.

### AVAILABLE FORMS AND SIZES

Thickness . . . . . ½", ¾", 1", 1½", 2" (13, 19, 25, 38, 51 mm)  
 Sheet Size . . . . . 4' x 4' (1.22 m x 1.22 m)  
 . . . . . 4' x 8' (1.22 m x 2.44 m)

Super Firetemp X 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" (3.2 mm)  
 Thickness . . . . . +/- 1/8" (3.2 mm) Sanded One Side  
 . . . . . +/- 1/16" (1.6 mm) Sanded Two Sides

### LINEAR SHRINKAGE AFTER 24 HRS. AT TEMPERATURE

| Temperature |     | Shrinkage (%) |       |           |             |
|-------------|-----|---------------|-------|-----------|-------------|
| °F          | °C  | Length        | Width | Thickness | Weight Loss |
| 1700        | 927 | 0.7%          | 0.8%  | 3.3%      | 9.9%        |

### THERMAL CONDUCTIVITY

| Mean Temperature         | °F | 200   | 400   | 600   | 800   |
|--------------------------|----|-------|-------|-------|-------|
|                          | °C | 93    | 204   | 316   | 427   |
| Btu • in/(hr • ft² • °F) |    | 0.65  | 0.70  | 0.75  | 0.80  |
| W/m • °C                 |    | 0.094 | 0.101 | 0.108 | 0.115 |



Operating Temperature Limit: 1700°F (927°C)

### SPECIFICATION COMPLIANCE

|   |   |
|---|---|
| ASTM C795 Corrosion: Austenitic Stainless Steel   | Passes                                  |
| ASTM C556   | Type II, Grade 7                        |
| ASTM E72  | Passes                                  |
| ASTM E84 Surface Burning Characteristics  | Flame Spread - 0<br>Smoke Developed - 0 |
| Density (Avg.)  | 40 pcf (641 kg/m³)                      |
| Maximum Recommended Continuous Service Temp.  | 1700°F (927°C)                          |
| Flexural Strength (Avg.)  | 1000 psi (6895 kPa)                     |
| Compressive Strength @10% deformation (Avg.)  | 2000 psi (13790 kPa)                    |
| Screw Holding Strength (lb/screw), #8 Screw<br>1/2" (13 mm) Penetration<br>7/8" (22 mm) Penetration | 80 lbs. (36.3 kg)<br>200 lbs. (90.7 kg) |
| Surface Hardness (Units) (Per Type "D" Durameter)   | Top Surface - 80<br>Bottom Surface - 80 |

**CODE COMPLIANCE**

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

**ISO 9001 CERTIFICATION**

Super Firetemp X is manufactured and tested in our own facility under an implemented Quality Management System which is certified to be in accordance with ISO 9001 quality standards.

**PRODUCT CERTIFICATION**

When ordering material to comply with any government specification or any other listed specification, a statement of that fact must appear on the purchase order. Government regulations and other listed specifications require specific lot testing, and prohibit the certification of compliance after shipment has been made. There may be additional charges associated with specification compliance testing. Please refer to IND-CSP-3 for Certification Procedures and Charges. Call customer service for more information.

**CONSOLIDATION UNDER LOAD (in/in)**

| Pressure |        | Deflection Under Load | Permanent Consolidation |
|----------|--------|-----------------------|-------------------------|
| psi      | kPa    |                       |                         |
| 200      | 1,379  | 0.008                 | 0.002                   |
| 500      | 3,448  | 0.014                 | 0.002                   |
| 1000     | 6,895  | 0.022                 | 0.003                   |
| 2000     | 13,790 | 0.059                 | 0.005                   |
| 3000     | 20,685 | 0.120                 | 0.057                   |
| 4000     | 27,580 | 0.243                 | 0.164                   |
| 5000     | 34,475 | 0.325                 | 0.248                   |
| 6000     | 41,370 | 0.364                 | 0.287                   |
| 7000     | 48,265 | 0.412                 | 0.337                   |

**QUALITY STATEMENT**

Johns Manville products are designed, manufactured and tested to strict quality standards in our own facilities. This along with third party auditing is your assurance that this product delivers consistent high quality.

**ADDITIONAL INFORMATION AND SDS**

Please visit our website at [www.jm.com/industrial](http://www.jm.com/industrial)  
Customer Service, Technical & General Information: (800) 866-3234



717 17th St.  
Denver, CO 80202  
(800) 866-3234  
JM.com

Technical specifications as shown in this literature are intended to be used as general guidelines only. Please refer to the Safety Data Sheet and product label prior to using this product. The physical and chemical properties of the Super Firetemp® X listed 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 Regional Sales Office nearest you for current information.

**All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville thermal insulation and systems, visit [www.jm.com/terms-conditions](http://www.jm.com/terms-conditions) or call (800) 654-3103.**