



## Industrial Insulation Group, LLC

A Calsilite/Johns Manville Joint Venture

## Fire Protection Systems

### Super Firetemp® S High Temperature Insulation

#### Description

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

#### Applications

Since Super Firetemp S possesses both exceptional strength and insulation qualities, it can be readily machined into component parts of many sizes and shapes. Uses include oven and furnace walls and structural supports.

#### Available Forms

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 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 ..... +/- ⅛" (3 mm)  
Thickness ..... +/- ⅛" (4 mm)

#### Additional Information and MSDS

Available at [www.iig-llc.com](http://www.iig-llc.com)



#### Physical Properties

Density (Avg.) ..... 55 pcf (881 kg/m³)  
Maximum Recommended Continuous Service Temperature ..... 1700°F (927°C)  
Flexural Strength ..... 1400 psi (9,653 kPa)  
Compressive Strength @ 10% Deformation . 4200 psi (28,959 kPa)  
Screw Holding Strength (lb/screw) #8 Screw  
½" (13 mm) Penetration ..... 150 lbs. (68.0 kg)  
¾" (22 mm) Penetration ..... 400 lbs. (181.4 kg)  
Surface Hardness (Units) (Per Type "D" Durameter)  
Top Surface ..... 80  
Bottom Surface ..... 80  
Moisture Content, Normal Percentage of Dry Weight ..... 4%

#### Specification Compliance

ASTM C 656, ..... Type II, Grade 8  
ASTM C 795: ..... Passes  
ASTM E 136: ..... Passes

#### Dimensional Shrinkage for 1" (25 mm) Thick Full Size Sheet

Due to Moisture from Normal to Dry, Inches (mm)

Length	Width	Thickness
0.013 (.33)	0.009 (.22)	0.004 (.10)

#### Linear Shrinkage After 24 Hours At Temperature, %

Temperature °F (°C)	Length	Width	Thickness	Weight Loss
1700 (927)	0.6	0.7	3.2	10.4

#### Thermal Conductivity ("k")

Mean Temperature		"k"	
°F	°C	Btu • in/(hr • ft² • °F)	W/m • °K
400	204	0.97	0.140
600	316	0.99	0.143
800	427	1.05	0.151

#### Compressive Strength After Exposure to Soaking Heat for 24 Hours

Pressure		300°F (149°C)		400°F (204°C)		600°F (316°C)		800°F (427°C)		1000°F (538°C)	
psi	kPa	DF	PC	DF	PC	DF	PC	DF	PC	DF	PC
500	3,448	0.008	0.000	0.008	0.001	0.052	0.001	0.050	0.002	0.056	0.002
1000	6,895	0.012	0.000	0.013	0.001	0.056	0.002	0.050	0.002	0.060	0.002
2000	13,790	0.017	0.001	0.017	0.002	0.062	0.002	0.053	0.002	0.066	0.002
3000	20,685	0.022	0.001	0.019	0.002	0.066	0.002	0.068	0.003	0.072	0.004
4000	27,580	0.028	0.001	0.022	0.002	0.076	0.002	0.076	0.004	0.079	0.005
5000	34,475	0.030	0.001	0.027	0.004	0.076	0.003	0.086	0.006	0.100	0.010
6000	41,370	0.044	0.002	0.037	0.004	0.084	0.014	0.099	0.011	0.125	0.014

DF = Deformation Under Load, inches. To convert inches to millimeters in above table, multiply by 25.4.

PC = Permanent Consolidation, inches. To convert inches to millimeters in above table, multiply by 25.4.

# Super Firetemp® S

High Temperature Insulation

## Code Compliance

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

## ISO 9001 Registration

Super Firetemp S 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.

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

---

### Super Firetemp

**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



**Industrial Insulation Group, LLC**  
*A Calsilite/Johns Manville Joint Venture*

1110 16 Road  
Fruita, CO 81521  
www.iig-llc.com

IIG-107 6-07 (Replaces 8-06)

The physical and chemical properties of the Super Firetemp® S 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](mailto:info@iig-llc.com).**

Copyright © 2004 Industrial Insulation Group  
Printed in USA