



## DESCRIPTION

March 06, 2008

**PROTHERM2** calcium silicate block and pipe high temperature insulation is manufactured using an industry preferred filter press method which provides accurate dimensional tolerances and superior compressive and flexural strength. These attributes facilitate installation and provide exceptional resistance to mechanical abuse. PROTHERM2 calcium silicate insulation is asbestos free and meets or exceeds all of the requirements of ASTM C 533, Type I.

## APPLICATIONS

**PROTHERM2** calcium silicate insulation is recommended for use indoors on equipment and piping operating at temperatures from ambient to 250 °F (121 °C) and protected outdoors up to 1200 °F (649 °C). It is ideally suited for industrial use in areas such as the petrochemical and power generating industries where energy conservation, process control, personal protection and fire protection are prerequisites.

## FORMS AVAILABLE

**PROTHERM2** calcium silicate block and pipe insulation is available in 3' (914 mm) and 2' (609 mm) lengths in single layer from 1" (25 mm) to 3" (76 mm) in ½" (13 mm) increments. Thicknesses over 3" (76 mm) are layered. **BLOCK** insulation is available in 3' (914 mm) lengths, 12" (305 mm) widths, in flat or 3V scored with longitudinal beveled edges. **PIPE** insulation is available in 2 pieces up to 23" (584mm) O.D.; 4 up to 32" (813mm) O.D.; 6 up to 37" x 3" or 43" (1,092mm) O.D.

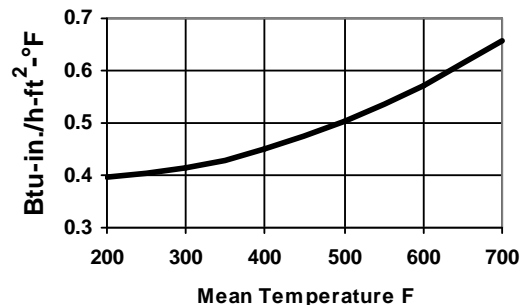
## PHYSICAL PROPERTIES - nominal

ASTM C 533, TYPE I

Compressive Strength (ASTM C 165)	Block Avg.	313 psi. (2154 kPa) to Produce 5% Compression	Min. 100 psi. (688 kPa)
Density(dry)Average (ASTM C 302)	Block Avg. Pipe Avg.	13.2 pcf (211 kg/m3) 13.5 pcf (216 kg/m3)	Max. 15.0 (240 kg/m <sup>3</sup> )
Flexural Strength (ASTM C 203)	Block Avg. Pipe Avg.	109 psi (750 kPa) 129 psi (888 kPa)	Min. 50 psi. (344 kPa)
Tumbling Friability (ASTM C 421)		3.9 % after first 10 min 9.0 % after second 10 min.	Max. 20% Max. 40%
Linear Shrinkage (ASTM C 356)		less than 2% after 24 hour soaking period at 1200 °F.	Max. 2%
Surface Burning Characteristics (ASTM E 84) And E136 (non-combustible)		FlameSpread: 00 Smoke Developed: 2.7	Max. 0 Max. 0
Max. Service Temperature (ASTM C 411)		1200 °F. (649 °C.)	Max. 1200°F. (649°C.)
Stress Corrosion Cracking of Austenitic Stainless Steel – ASTM C795; C692; C871		Passed	

## THERMAL CONDUCTIVITY (“k”)\*

Mean Temp °F	BTU•in./hr•ft <sup>2</sup> •°F		Mean Temp °C	mW/mK	
	Block	Pipe		Block	Pipe
200	.396	.398	93	57.1	57.4
300	.433	.416	149	62.5	60.0
400	.478	.451	204	69.0	65.0
500	.531	.502	260	76.6	72.4
600	.591	.571	316	85.2	82.3
700	.658	.656	371	95.0	94.6



ASTM C177 & C335/1045 Calculated