DATA SHEET

THERMAL DATA SHEET
THERMAL TECH & TEMP INC.

TTT-TSM-12

1 DESCRIPTION

TTT-TSM-12 is a lightweight, high temperature insulation composed of 100% amorphous silica fiber that has been specially treated during the manufacturing process to reduce residual shrinkage at elevated temperatures.

2 APPLICATIONS

TTT-TSM-12 is intended for use in glass furnace crown insulation repair, nuclear insulation applications, acoustic insulation, insulating pads and blankets, high temperature & acid resistant gaskets, exhaust manifold insulation, stress relieving pads, high temperature pipe and valve insulation, welding protection, thermal and acoustic insulation for steam and gas turbines, expansion joints and more.

3 ADVANTAGES

The unique properties of TTT-TSM-12 make it binder free, highly resilient, non-respirable, fireproof and cost effective. TTT-TSM-12 also has outstanding chemical resitance, has excellent sound absorption and low shrinkage.

4 PROPERTY DATA

Characteristics:	**Method:**	**English Values:**	**Metric Values:**
Thickness	ASTM-D-1777	1/2" +/- 10%	12.7 mm +/- 10%
Density		10.5 to 12.0 lbs/ft^3	168 to 192 kg/cc
Temperature Resistance	N/A	Intermittent: 2200°F	Intermittent: 1200°C
		Continuous: 2000°F	Continuous: 1100°C
		Melting: 3100°F	Melting: 1700°C
Linear Shrinkage	24 hrs at 1000°F (540°C)	0.05%	
	24 hrs at 1200°F (990°C)	0.06%	
	24 hrs at 1400°F (820°C)	0.06%	
	24 hrs at 1600°F (1000°C)	0.10%	
	24 hrs at 1800°F (1100°C)	0.30%	
	24 hrs at 2000°F (1200°C)	0.70%	
Thermal Conductivity	500°F (260°C)	0.45 Btu-in/hr.ft	0.054 Kcal-m/hr.m^{20}C
	1000°F (540°C)	0.78 Btu-in/hr.ft	0.094 Kcal-m/hr.m^{20}C
	1500°F (820°C)	1.39 Btu-in/hr.ft	0.166 Kcal-m/hr.m^{20}C
	1800°F (1000°C)	1.93 Btu-in/hr.ft	0.231 Kcal-m/hr.m^{20}C
Color:	N/A	White	

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