



## Product Description

Superwool Pyro-Fold modules are accordion fold blocks used for lining industrial furnaces.

Superwool Pyro-Stack modules are blanket cut and stacked edge-grain rather than continuously folded.

Superwool meets the requirements requested under NOTA Q. All Superwool fiber products are exonerated from classification and labelling regulation in Europe.

The Thermal Ceramics Superwool family of products offers a versatile alternative to traditional insulation solutions for commercial, industrial, and transportation applications. Superwool products are special alkaline earth composition fibers that have been uniquely engineered to offer advantages in high temperature insulation applications:

- low thermal conductivity
- low bio-persistence
- low linear shrinkage up to their use limit

These lightweight wool fibres are manufactured using QS 9000/ISO 9002-certified processes.

Superwool provides stability and resistance to chemical attack. Exceptions include hydrofluoric acid, phosphoric acid and strong alkalis (i.e. NaOH, KOH). Superwool is unaffected by incidental spills of oil or water. Thermal and physical properties are restored after drying.

The Superwool Y module uses the proven center-fire, one step weld system which eliminates the need for pre-lay out stud patterns.

Superwool M Module, a center mounted module, requires a pre-lay out stud system. Studs and nuts must be purchased separately.

Superwool T-Bar Module requires pre-layout of studs with shared anchors between blocks. Studs, nuts, and yokes must be purchased separately.

Other attachment systems are available upon request.

## Type

Alkaline Earth Silicate (AES) Wool  
CAS number: 329211-92-9

## Features

- Accordion style construction or edge-grain
- Choice of available attachment systems
- Non-wetting to molten aluminum
- Low biopersistence
- Thermal stability
- Low heat storage
- Flexible and resilient
- Immune to thermal shock
- Excellent thermal insulating performance
- Based on patented technology

## Applications

- Homogenizing furnaces
- Process heaters
- Ceramic kiln
- Annealing furnace
- Heat treating furnace
- Thermal oxidizers

## Typical Dimensions

Standard sizes, in (mm)	12 x 12 (305 x 305)
	24 x 12 (610 x 305)
	6 x 12 (153 x 305)
	12 x 6 (305 x 152)
Thickness, 1" (25.4 mm) increments, ,in. (mm)	4 - 12 (102 - 305)

# Superwool<sup>®</sup> Pyro-Fold and Pyro-Stack Modules

## Physical Properties

	Superwool 607	Superwool HT
Color	white	white
Classification Temperature Rating, °F (°C)	2012 (1100)	2372 (1300)
Density, pcf (kg/m <sup>3</sup> )	8, 9.3 (128, 149)	8, 9.3 (128, 149)

## Chemical Analysis, %

Silica, SiO <sub>2</sub>	60 - 70	70 - 80
Calcium Oxide, CaO	29 - 42	18 - 25

## Thermal Conductivity, Btu·in/hr·ft<sup>2</sup>·°F (w/m·k) (ASTM 201), measured at 8 pcf (128 kg/m<sup>3</sup>)

Mean temperature		
@ 392°F (200°C)	-	0.28 (0.04)
@ 500°F (260°C)	0.42 (0.06)	-
@ 752°F (400°C)	-	0.56 (0.08)
@ 1000°F (538°C)	0.88 (0.13)	-
@ 1112°F (600°C)	-	0.97 (0.14)
@ 1472°F (800°C)	-	1.60 (0.23)
@ 1500°F (816°C)	1.53 (0.22)	-
@ 1800°F (982°C)	1.95 (0.28)	-
@ 1832°F (1000°C)	-	2.36 (0.34)
@ 2192°F (1200°C)	-	3.33 (0.48)

## Superwool 607 and Superwool 607 HT Pyro-Fold and Pyro-Stack module Installation

There are a number of factors which must be considered when designing a Thermal Ceramics Superwool module lining. The use limits of Superwool modules should be used as a guide when considering lining installation and design. For assistance, please call your nearest Thermal Ceramics representative.

The values given herein are 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. Therefore, the data contained herein should not be used for specification purposes. Check with your Thermal Ceramics office to obtain current information.

This product may be covered by one or more of the following patents or foreign equivalents: US5332699, US5714421, US5811360, US5821183, US5928975, US5955389, US5994247, US6180546, EP0906250, GB2348640. A list of foreign patent numbers is available upon request to The Morgan Crucible Company plc. Thermal Ceramics, Superwool, and 607 are trademarks of The Morgan Crucible Company plc. Pyro-Fold, Y, M, T-Bar and Pyro-Stack are trade names of Thermal Ceramics Inc.