



Superwool[®] XTRA Pyro-Stack Modules

Product Data Sheet

Product Description

Superwool XTRA Pyro-Stack Blanket Module System is manufactured using our patented Superwool XTRA composition and technology. Our newest innovation **does not form respirable crystalline silica** and is designed to offer **excellent performance in demanding high temperature applications**.

Superwool XTRA Pyro-Stack Modules are composed using Superwool XTRA Blanket, cut, stacked, compressed and banded with strips. With a classification temperature of 1450°C (2600°F), the modules are available featuring the M-type or T-type Module hardware. The T-type module contains two stainless steel tubes mounted transversely through the module and remote from the hot face. T-type modules are anchored with an external, side-fix yoke. The M-type module hardware is designed with a central yoke embedded into the module, and is fitted onto pre-welded studs.

Please review the best option with your regional Morgan Advanced Materials Sales Representative and Applications Engineering team. Additionally, we recommend following the Superwool XTRA Design and Installation Guidelines for Superwool XTRA Pyro-Stack Modules.

Features

- Excellent thermal stability results in reliable and consistent thermal insulating performances:
 - Immune to thermal shock
 - Binder or lubricant free
 - Thermal stability
 - Low heat storage
- Does not form crystalline silica when exposed to high temperatures
- Excellent resistance to chemicals and pollutants, especially alkali metals
- Excellent tensile strength
- Good sound absorption

Applications

- Ethylene Cracking Furnace
- Ammonia Reformer
- Flare Stack
- Sintering Furnaces
- Coking Plant
- Galvanizing Furnaces
- Forge Furnaces

Environmental & Health Safety

Superwool low biopersistent fibres manufactured by Morgan Advanced Materials are not classified as carcinogenic by IARC or under any national regulations on a global basis. They have no requirements for warning labels under GHS (Globally Harmonised System for the classification and labelling of chemicals).

In Europe, Superwool fibres meet the requirements specified under Note Q of European Regulation EC/1272/2008 (on Classification, Labelling and Packaging of substances and mixtures). All Morgan Advanced Materials Superwool low biopersistent fibre products are therefore exonerated from classification and labelling as hazardous in Europe.

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Properties		Superwool XTRA Pyro-Stack Modules
Colour		White
Classification Temperature, °C (°F), EN 1094-1		1450 (2600)
Continuous Use Temperature, °C (°F)		1300 - 1325 (2372-2417)
Density, kg/m ³ (pcf), EN 1094-1		170, 192, 210 (10.7, 12, 13)
Chemical Analysis, %		
	Alumina, Al ₂ O ₃	32 - 38
	Silica, SiO ₂	27 - 33
	Potassium Oxide, K ₂ O	23 - 28
	Zirconia, ZrO ₂	5 - 9
	Magnesium Oxide, MgO	0.5 - 1.5

Thermal Conductivity, W/m·K, per ASTM C201				
	Density, kg/m ³	170 (10.7)	192 (12)	210 (13)
	200°C	0.08	0.08	0.08
	400°C	0.12	0.11	0.11
	600°C	0.21	0.19	0.18
	800°C	0.35	0.31	0.28
	1000°C	0.54	0.47	0.42
	1200°C	0.77	0.67	0.59

Thermal Conductivity, BTU·in/hr·ft ² ·°F, per ASTM C201				
	500°F	0.60	0.59	0.59
	1000°F	1.24	1.12	1.07
	1500°F	2.52	2.22	2.02
	1832°F	3.75	3.26	2.91
	2000°F	4.44	3.87	3.43
	2500°F	7.02	6.09	5.31

Product Availability

Superwool XTRA Pyro-Stack Modules are manufactured and available globally, but packaging, density and thickness vary by region. Please contact your regional Morgan Advanced Materials - Thermal Ceramics representative to support providing specific packaging availability for your local business needs.

Whilst the values and application information in this datasheet are typical, they are given for guidance only. The values and the information given are subject to normal manufacturing variation and may be subject to change without notice. Morgan Advanced Materials – Thermal Ceramics makes no guarantees and gives no warranties about the suitability of a product and you should seek advice to confirm the product's suitability for use with Morgan Advanced Materials - Thermal Ceramics.