Superwool® XTRA Unifelt

Product Data Sheet

Product Description

Superwool XTRA Unifelt 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**.

Excellent flexibility and very good dimensional resilience after compression and make utilisation of the boards or cut pieces very easy where rigid products are unsuitable. Additionally, Superwool XTRA Unifelt is supplied in a range of thicknesses featuring a light weight, high heat resistance, low thermal conductivity with high sound absorption properties.

Superwool XTRA Unifelt is bonded with an organic binder which begins to burn out on exposure to 180-200°C (356-392°F).

Features

- Excellent thermal stability results in reliable and consistent thermal insulating performances:
  - Low heat storage
  - High thermal coefficient of expansion to counteract shrinkage in operation
  - Excellent thermal stability with time
  - Immune to thermal shock
- Does not form crystalline silica when exposed to high temperatures
- Excellent resistance to chemicals and pollutants, especially alkali metals
- Resistant to water and steam
- Good sound absorption
- Excellent tensile strength results in:
  - Strong resistance to tearing
  - Excellent flexibility
  - Easily die-cut to form complex shapes for high temperature gasketing

Applications

- Sealing
- Ingot insulation
- Expansion gaskets
- Back-up insulation
- Veneering modules

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 Unifelt
Colour	White / Tan
Continuous Use Temperature, °C (°F)	1450 (2600)
Melting Temperature, °C (°F)	1650 (3000)
Density, kg/m^3 (pcf)	220 (14)
Modulus of Rupture, MOR, MPa (psi)	
Linear Shrinkage, %, EN 1094-1	
1450°C (2600°F)	<3
Chemical Analysis, % weight basis after firing	
Alumina, Al_2O_3	32 - 38
Silica, SiO_2	27 - 33
Potassium Oxide, K2O	23 - 28
Zirconia, ZrO2	5 to 9
Magnesium Oxide, MgO	0.5 - 1.5
Other	<0.5
Loss of Ignition, LOI	8
Thermal Conductivity, W/m•K (BTU•in/hr•ft^2), per ASTM C201	
400°C (752°F)	0.08 (0.55)
600°C (1112°F)	0.12 (0.83)
800°C (1472°F)	0.18 (1.25)
1000°C (1832°F)	0.25 (1.73)
1200°C (2192°F)	0.34 (2.36)
1300°C (2372°F)	0.39 (2.70)

Product Availability

Superwool XTRA Unifelt are manufactured in Europe.

The boards in standard size 1000mm x 500mm (39.37in x 19.7in) are packed in cartons or shrink film wrapped pallets. Other sizes or die cut pieces can be made available upon request (subject to minimum order requirements).

Please contact your regional Morgan Advanced Materials - Thermal Ceramics representative to support providing specific packaging availability for your local business needs.

Thickness, mm (in)	Quantity per box	Quantity of boxes per pallet
6 (0.24)	15	20
10 (0.39)	10	28
13 (0.51)	8	
15 (0.59)	7	
20 (0.79)	5	
25 (0.98)	4	
30 (1.18)	3	
40 (1.57)	2	
50 (2.0)	2	

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.

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