

Superwool[®] HT Felt

Product Data Sheet



Product Description

Superwool HT Felt is an insulating felt, obtained by hot pressing. It is made from low biopersistent Superwool HT fibres, bonded with an organic binder which begins to burn out at 180°C (356°F). This special binder makes Superwool HT Felt particularly suitable for die-cutting operations. Semi rigid, it is neither brittle or dusty. Superwool HT Felt optimises the manufacture of complex, die-cut shapes to close tolerances.

Features

- Densities ranging from 64 to 288kg/m³ (4 to 18 pcf)
- High temperature resistance
- Low thermal conductivity
- Flexible to semi-rigid, depending on density selected
- Chemically stable
- Thickness controls
- Thermal shock resistant
- Low heat storage
- No reaction with alumina based bricks in application in the range
- Suited to cutting operations (with saw, water jet or by stamping)
- Excellent sound absorption characteristics

Applications

- Die cut shapes for domestic appliances
- Thermal barrier media
- Insulating thermal break
- High temperature gaskets
- Expansion joints for furnace, kiln and boiler linings

Environmental & Health Safety

Superwool low biopersistent fibres are exonerated and 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 NOTA Q of European Directive 67/548. All Morgan Advanced Materials Superwool low biopersistent fibre products are therefore exempt from the classification and labelling regulation in Europe.

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Properties				
Region of manufacture	Europe			
Color	Yellow			
Classification Temperature, °C (°F)	1300 (2370)			
Density, kg/m ³ (pcf)	64, 96, 128, 160, 192, 224, 256, 288 (4, 6, 8, 10, 12, 14, 16, 18)			
Linear shrinkage, %, EN 1094-1				
1200°C (2192°F)	<2			
Chemical Analysis, % weight basis after firing				
Silica, SiO ₂	70-80			
Calcium oxide + Magnesium oxide, CaO + MgO	18-25			
Other	<3			
Loss of Ignition, LOI, density dependent	4-12			
Thermal Conductivity, W/m·K (BTU·in/hr·ft²), per ASTM C201				
Density, kg/m ³ (pcf)	<u>64 (4)</u>	<u>128 (8)</u>	<u>192 (12)</u>	<u>288 (18)</u>
300°C (572°F)	0.07 (0.49)	0.07 (0.49)	0.06 (0.42)	0.05 (0.35)
500°C (932°F)	0.16 (1.11)	0.12 (0.83)	0.09 (0.62)	0.08 (0.56)
700°C (1292°F)	0.28 (1.94)	0.2 (1.39)	0.14 (0.97)	0.11 (0.76)
900°C (1652°F)	0.45 (3.12)	0.32 (2.22)	0.21 (1.46)	0.16 (1.11)
1000°C (1832°F)	0.55 (3.82)	0.38 (2.64)	0.25 (1.73)	0.19 (1.32)
1100°C (2012°F)	0.66 (4.58)	0.45 (3.12)	0.3 (2.08)	0.22 (1.53)

Product Availability

This product availability and packaging reflects the European manufactured Superwool HT Felt. Please contact your regional Morgan Advanced Materials - Thermal Ceramics representative for packaging availability for your local needs.

Thickness, mm (in)	Density, kg/m ³ (pcf)						Quantity / box	Minimum order quantity (Box)	
	64 (4)	96 (6)	128 (8)	160 (10)	192 (12)	288 (18)			384 (24)
3 (0.12)					X	X	X	40	1
6 (0.24)		X	X	X	X	X	X	22	2
10 (0.4)	X	X	X	X	X	X	X	12	3
13 (0.52)	X	X	X	X	X	X	X	10	3
19 (0.76)	X	X	X	X	X			7	3
25 (1)	X	X	X	X	X			5	4
38 (1.52)		X						3	4

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.