Data sheet

Superwool® HT Felt

ENGLISH

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Description

Superwool® HT Felt is an insulating felt, obtained by hot pressing.

It is made from 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 nor dusty.

Superwool® HT Felt optimises the manufacture of complex, die-cut shapes to close tolerances.

Made from chemically stable fibres, lightweight and very insulating, Superwool® HT Felt is a multi-purpose product.

Type

Felt manufactured from high temperature insulation wool.

Classification temperature

1300°C (2372°F) (EN 1094-1)

The maximum continuous use temperature depends on the application. Unaffected by most chemicals except strong alkalis, phosphoric acid and molybdenum. For further advise please contact your local Morgan Thermal Ceramics partner.

Benefits

- Wide range of densities: eight grades from 64kg/m³ up to 288kg/m³
- High temperature resistance
- Low thermal conductivity
- Particularly suited to cutting operations (with saw, water jet or by stamping)
- Flexible or semi-rigid, depending on density selected
- Chemically stable
- High sound absorption properties
- Precise thicknesses
- Resistant to thermal shock
- Low heat storage
- No reaction with alumina based bricks in application in the range of the typical use temperature
- Exonerated from any carcinogenic classification under nota Q of directive 97/69EC

Typical applications

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

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Superwool® HT Felt

Metric information

	Superwool HT felt				
Classification temperature, °C	1300				
Colour	yellow				
Density, kg/m³	64	96	128	192	288
Loss on ignition (depending on grade), %	4 - 12				
Permanent linear shrinkage, EN 1094-1					
after 24 hours isothermal heating, %					
@1300°C	<2				
Thermal conductivity, ASTM C-201**, W/m K**					
@300°C	0.07	0.07	0.07	0.06	0.05
@500°C	0.16	0.15	0.12	0.09	0.08
@700°C	0.28	0.25	0.20	0.14	0.11
@900°C	0.45	0.38	0.32	0.21	0.16
@1000°C	0.55	0.45	0.38	0.25	0.19
@1100°C	0.66	0.54	0.45	0.30	0.22
Specific heat capacity, kJ/kg.K					
@1090°C	1.22				
Chemical composition, %					
SiO_2 on calcined product	70 - 80				
CaO+MgO	18 -25				
Others	<3				

Availability and Packaging

Superwool® HT Felt is packed in cartons, 1220 x 1070mm on pallets

Marks (o) upon request (subject to minimum order requirements).

Thickness mm	Density kg/m³					
	64	96	128	160	192	288
6	•	•	•	•	•	•
10	•	•	•	•	•	•
13	•	•	•	•	•	•
19	•	•	•	•	•	•
25	o	•	•	•	•	

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Data sheet

Superwool® HT Felt

Imperial information

	Superwool HT felt			
Classification temperature, °F	2372			
Color	yellow			
Density, depending upon grade , pcf	4	8	12	18
Loss of ignition, depending on grade, %	4 - 12			
Permanent linear shrinkage, ENV 1094-7				
after 24 hours isothermal heating, %	<2			
Specific heat capacity				
@ 1994°F , BTU/lb•°F	0.291			
Thermal conductivity, ASTM C-201**, W/m K**				
@ 572°F	0.49	0.49	0.42	0.35
@ 933°F	1.11	0.83	0.62	0.56
@ 1292°F	1.94	1.39	0.97	0.76
@ 1652°F	3.12	2.22	1.46	1.11
@ 1832°F	3.82	2.64	1.73	1.32
@ 2012°F	4.51	3.12	2.08	1.53
Chemical analysis, % weight basis after firing				
SiO_2, on all calcined products	70 - 80			
CaO + MgO	18 - 25			
Other	<3			

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