

## Cerafelt



### Description

Cerafelt™ is an insulating refractory felt, obtained by hot pressing. It is made from Cerachem fibres, bonded with an organic binder which begins to burn out at 180°C.

This special binder makes Cerafelt particularly suitable for die-cutting operations. Semi rigid, it is neither brittle nor dusty.

Cerafelt optimizes the manufacture of complex, die-cut shapes to close tolerances.

With a choice from eight densities and seven thicknesses, Cerafelt offers a grade to suit most requirements.

Made from chemically stable fibres, lightweight and very insulating, Cerafelt is a multi-purpose product.

### Type

Refractory fibre felt.

### Classification Temperature

1320°C

The maximum continuous use temperature depends on the application. In case of doubt, refer to your local Morgan Thermal Ceramics distributor for advice.

### Features

- Wide range of densities: eight grades from 48kg/m<sup>3</sup> up to 384kg/m<sup>3</sup>
- High temperature resistance
- Very 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

### Applications

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

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## Cerafelt

Main properties		
Classification temperature	°C	1320
Properties Measured at Ambient Conditions (23°C/50% RH)		
Colour		Yellow
Density	kg/m <sup>3</sup>	48-384
High Temperature Performance		
Loss on ignition (depending on grade)	%	4-12
Permanent linear shrinkage (NFB-40-456) after 24 hours isothermal heating at 1260°C	%	2.5
Permanent linear shrinkage (NFB-40-456) after 24 hours isothermal heating at 1320°C	%	3.0

Thermal Conductivity (NFB-40-456) at mean temperature of:								
	48Kg/M <sup>3</sup>	64Kg/M <sup>3</sup>	96Kg/M <sup>3</sup>	128Kg/M <sup>3</sup>	160Kg/M <sup>3</sup>	192Kg/M <sup>3</sup>	288Kg/M <sup>3</sup>	384Kg/M <sup>3</sup>
300°C	0.11	0.10	0.08	0.08	0.07	0.07	0.07	0.06
500°C	0.20	0.17	0.14	0.12	0.11	0.11	0.10	0.10
700°C	0.33	0.27	0.21	0.18	0.16	0.15	0.13	0.13
900°C	0.51	0.41	0.31	0.25	0.22	0.20	0.17	0.15
1000°C	0.75	0.59	0.42	0.34	0.29	0.25	0.21	0.18
Specific heat capacity at 540°C	<b>kJ/kg.K</b>	1.13						

Chemical Composition		
SiO <sub>2</sub>	%	49.7
Al <sub>2</sub> O <sub>3</sub>	%	35.1
ZrO <sub>2</sub>	%	14.7
Fe <sub>2</sub> O <sub>3</sub>	%	0.1
CaO + MgO	%	0.05
Na <sub>2</sub> O + K <sub>2</sub> O	%	0.2

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### Availability and Packaging

Standard size 1220 x 1070mm. Size 2450 x 1070mm, other densities and thicknesses upon request.  
Cerafelt is packed in cartons on pallets.

Thickness mm	Density KG/M <sup>3</sup>							
	48	64	96	128	160	192	288	384
3				X	X	X	X	X
6		X	X	X	X	X	X	X
10		X	X	X	X	X	X	X
13	X	X	X	X	X	X	X	
19	X	X	X	X	X	X		
25	X	X	X	X	X	X		
38			X					

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