

# Cerafelt®

## Product Data Sheet



### Product Description

Cerafelt is an insulating refractory felt, manufactured with our Cerachem® fibres by hotpressing. Cerafelt is bonded with an organic binder which begins to burn out at 180°C (356°F).

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.

### Features

- Wide range of densities: eight grades from 48 up to 384 kg/m<sup>3</sup> (3 up to 24 pcf)
- 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

Properties		Cerafelt
Region of Manufacture		EMEA
Color		Yellow
Classification Temperature, °C (°F), EN 1094-1 (2008)		1320 (2400)
Density, kg/m <sup>3</sup> , EN 1094-1 (2008)		
	Dry, as supplied	48, 64, 96, 128, 160, 192, 288, 384
Loss of Ignition, %		4-12
Permanent Linear Shrinkage, %, after 24 hours, ENV 1094-1		
	1260°C (2300°F)	2.5
	1320°C (2400°F)	3
Chemical Analysis, %		
	Alumina, Al <sub>2</sub> O <sub>3</sub>	35.1
	Silica, SiO <sub>2</sub>	49.7
	Zirconium oxide, ZrO <sub>2</sub>	14.7
	Others	0.35

Thermal Conductivity, W/m·K (BTU·in/hr·ft <sup>2</sup> ·°F), ASTM C201								
Density, kg/m <sup>3</sup>	48	64	96	128	160	192	288	384
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

### Standard Dimensions and Availability

This Cerafelt Product is manufactured in EMEA.

Please check with your local Morgan Advanced Materials -Thermal Ceramics representative for your local business needs.

Thickness, mm (in)	Density, kg/m <sup>3</sup>							
	48	64	96	128	160	192	288	384
3 (0.12)				X	X	X	X	X
6 (0.24)		X	X	X	X	X	X	X
10 (0.4)		X	X	X	X	X	X	X
13 (0.52)	X	X	X	X	X	X	X	
19 (0.76)	X	X	X	X	X	X		
25 (1)	X	X	X	X	X	X		
38 (1.52)			X					

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