



DESCRIPTION

All three grades of blanket have the same excellent chemical stability compared with their raw materials: Cerafibre™, Cerachem™ Fibre and Cerachrome™ Fibre spun bulk.

They have excellent strength before and after heating. They have superior acoustic as well as thermal insulation characteristics.

The wide range of available densities and thicknesses allow for the most effective deployment of the superior thermal characteristics in a wide variety of applications.

TYPE

Refractory fibre blankets

CLASSIFICATION TEMPERATURE

Cerablanket™:	1260°C
Cerachem™ Blanket:	1425°C
Cerachrome™ Blanket:	1425°C

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

FEATURES

- Excellent insulating performance.
- Unaffected by most chemicals except hydrofluoric and phosphoric acids and strong alkalis.
- Excellent thermal stability: fibres have good resistance to devitrification.
- For some applications, it is possible to use Cerachrome Blanket above its classification temperature (shrinkage is 5% at 1500°C).
- Low heat storage.
- The combination of long spun fibres and the needling operation produce tough, resilient and strong blankets, which resist tearing both before and after heating.
- Resistance to thermal shock.
- Good sound absorption.

APPLICATIONS

- Furnace and kiln linings
- Boiler insulations
- Heat treatment temperature control
- Glass furnace crown insulation
- Furnace door seals
- Duct linings
- Pipe insulations
- Thermal barriers for automotive industry
- Insulation for field stress relieving of welds
- High temperature filter media
- Nuclear insulation applications
- Steam and gas turbines insulation

MAIN PROPERTIES

	°C	Cerablanket™ 1260	Cerachem™ Blanket 1425	Cerachrome™ Blanket 1425
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Properties Measured at Ambient Conditions (23°C/50% RH)

• Colour		white	white	blue/green
• Density (ENV 1094-7)	kg/m ³		64 up to 160 (4 densities available)	
• Tensile strength (ENV 1094-7)				
64kg/m ³	kPa	30	30	30
96kg/m ³	kPa	70	70	65
128kg/m ³	kPa	90	90	85
160kg/m ³	kPa	110	110	

High Temperature Performance

• Permanent linear shrinkage (EN 1094-7) after 24 hours isothermal heating at:					
1000°C	%	1.5	-	1.5	
1100°C	%	2.2	-	2.2	
1200°C	%	3.0	1.0	2.7	
1300°C	%	5.5	2.0	3.5	
1400°C	%	-	3.5	4.0	
1500°C	%	-	-	5.0	
• Thermal Conductivity at mean temperature of (all 3 grades):		64kg/m ³	96kg/m ³	128kg/m ³	160kg/m ³
200°C	W/m.K	0.07	0.06	0.06	-
400°C	W/m.K	0.12	0.11	0.10	0.09
600°C	W/m.K	0.20	0.16	0.15	0.13
800°C	W/m.K	0.30	0.23	0.20	0.18
1000°C	W/m.K	0.43	0.32	0.27	0.25
• Specific heat at 1090°C (All 3 grades)	kJ/kg.K		1.13		

Chemical composition

Al ₂ O ₃	%	44	35	42.7
SiO ₂	%	56	50.0	54.5
Cr ₂ O ₃	%	-	-	2.8
ZrO ₂	%	-	15	-
Fe ₂ O ₃ + TiO ₂	%	0.15	0.15	0.15
CaO + MgO	%	0.05	0.09	0.10
Na ₂ O + K ₂ O	%	0.10	0.10	0.10

Availability and Packaging

Blankets are packed in cartons, on pallets wrapped in stretchable film.

Thick mm	Cerablanket™				Cerachem™ Blanket				Cerachrome™ Blanket		Length mm	Width mm	m ₂ /Carton
	64	96	128	160	64	96	128	160	96	128			
6			○	○			○	○			5500 x 4	610	13.42
10	○	X	X	X	○	X	X	X			18500	610	11.28
13	X	X	X	X	X	X	X	X	X	X	14640	610	8.93
19	○	X	X	X	X	X	X	X	○	○	9760	610	5.95
25	X	X	X	X	X	X	X	X	X	X	7320	610	4.46
38	X	X	X	X	X	X	X	X			4880	610	2.98
50	X	X	X	X	X	X	X	X			3660	610	2.23

Marks (○) and width 1220mm upon request (subject to minimum order requirements).

Your local contact:

Distributed by:

The values given herein are typical values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore, the data contained herein should not be used for specification purposes. Check with your Thermal Ceramics office to obtain current information.

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