Cerablanket® and Cerachem® Blankets

Product Data Sheet

Product Description

Cerablanket and Cerachem Blankets feature exceptional thermal and physical properties. Cerablanket and Cerachem are optimised for improved handleability with excellent tensile strength, low thermal conductivity and high-temperature performance stability.

Cerablanket is made from high purity oxides of alumina and silica and has a classification temperature of 1260°C (2300°F).

Cerachem Blankets are made from alumina-silica-zirconia designed to resist excessive shrinkage at elevated temperatures and are rated to 1430°C (2600°F). Available in a wide range of densities and thicknesses allow for the most effective deployment of the superior thermal characteristics in a wide variety of applications.

Cerablanket and Cerachem Blankets are resistant to most types of chemical attack. They are lightweight, strong and feature a low heat storage capacity for effective energy savings and excellent thermal shock resistance for use in difficult environments.

Features

- Excellent insulating performance
- Excellent thermal stability: fibres have good resistance to devitrification
- Low heat storage
- Tough, resilient and strong blankets, which resist tearing both before and after heating
- Resistance to thermal shock
- Good acoustic properties
- No smoke emission due to binder burn out

Applications

- Power generation, especially HRSG duct insulation
- Industrial and Commercial Chimney insulation
- Furnace, Boiler and Heater linings
- Pipe wrap
- Back-up linings in kilns and furnaces
- Consumer goods
- Storage heater insulation
- Metals applications like launder covers
- Welding stress relief

www.morganthermalceramics.com
Email: marketing.tc@morganplc.com
Thermal Ceramics is a business of Morgan Advanced Materials

Cerablanket® and Cerachem® Blankets

Product Data Sheet

Properties	Cerablanket	Cerachem Blanket
Colour	White	White
Classification Temperature, °C (°F)	1260 (2300)	1430 (2600)
Continuous Use Temperature, °C (°F)	1180 (2150)	1315 (2400)
Melting Temperature, °C (°F)	1760 (3200)	1760 (3200)
Density, kg/m^3 (pcf)	64, 96, 128, 160 (4, 6, 8, 10)	64, 96, 128, 160 (4, 6, 8, 10)
Tensile Strength, average, kPa (psi), EN 1094-1		
Measured Blanket density, kg/m^3 (pcf), 64 (4)	30 (4.35)	30 (4.35)
96 (6)	70 (10.15)	70 (10.15)
128 (8)	90 (13.05)	90 (13.05)
160 (10)	110 (15.95)	110 (15.95)
Chemical Analysis, %		
Silica, SiO_2	52 - 58	48 - 52
Alumina, Al_2O_3	42 - 48	33 - 37
Zirconia, ZrO_2	-	13 - 17
Other	trace	trace

Thermal Conductivity, W/m•K, per ASTM C201					
	Cerablanket			Cerachem Blanket	
Density, kg/m^3 (pcf)	64 (4)	96 (6)	128 (8)	96 (6)	128 (8)
200°C	0.06	0.06	0.05	0.07	0.05
400°C	0.11	0.09	0.08	0.1	0.08
600°C	0.19	0.16	0.13	0.16	0.14
800°C	0.31	0.25	0.19	0.24	0.19
1000°C	0.45	0.36	0.27	0.36	0.27
1200°C	-	-	-	0.51	0.36
Thermal Conductivity, BTU•in/hr•ft^2•°F, per ASTM C201					
500°F	0.5	0.46	0.4	0.53	0.4
1000°F	1.14	0.94	0.78	0.94	0.81
1500°F	2.2	1.77	1.36	1.75	1.39
1832°F	3.12	2.50	1.87	2.50	1.87
2000°F	3.68	2.94	2.15	2.96	2.15

Product Availability

Cerablanket and Cerachem Blankets are manufactured and available globally, but packaging, density and thickness vary by region. Please contact your regional Morgan Advanced Materials - Thermal Ceramics representative to support providing specific packaging availability for your local business needs.

www.morganthermalceramics.com
Email: marketing.tc@morganplc.com
Thermal Ceramics is a business of Morgan Advanced Materials