Cerafiber / Cerachem Fiber / Cerachrome Fiber

Datasheet Code 5-5-06 E

MSDS Code 104-9-EURO REACH

© 2009 Morgan Thermal Ceramics, a business within the Morgan Ceramics Division of The Morgan Crucible Company plc



DESCRIPTION

Cerafiber: Spun refractory fibres, made from electrically melted alumina and silica.

Cerachem Fiber: Spun refractory fibres, made from electrically melted alumina, silica and zirconia.

Cerachrome Fiber: Spun refractory fibres, made from electrically melted alumina, silica and chromia.

All three fibres are resistant to chemical attack, except for hydrofluoric and phosphoric acids and strong alkalies

TYPE

Bulk refractory fibres.

MAXIMUM CONTINUOUS USE TEMPERATURE

Cerafiber : 1260°C
Cerachem Fiber : 1425°C
Cerachrome Fiber: 1425°C
The maximum continuous use temperature depends on the application. In case of doubt, refer to your local Morgan Thermal Ceramics distributor for advice.

GRADES AVAILABLE

Cerafiber 10, Cerachem Fiber 50 & Cerachrome Fiber 40:
Unprocessed, long unlubricated fibre. Raw material for vacuum forming processes.

Cerafiber 11:
Unprocessed, long lubricated fibre of low shot content. Raw material for textile products.

Cerafiber 520, Cerachem Fiber 51 & Cerachrome Fiber 41:
Long lubricated fibre for packing expansion and void areas in refractory constructions.

FEATURES

- Excellent thermal stability: resist devitrification at high temperature
- Low thermal conductivity
- Excellent thermal shock resistance
- High chemical stability
- Contain no binders or corrosive agents
- Resilient up to high temperatures
- Low heat storage capacity
- Excellent sound absorber
- The packed density of bulk refractory fibres is between 90 and 200kg/m3 depending on the force applied to pack it. It is very difficult to obtain a density higher than 200kg/m3 by hand packing.

APPLICATIONS

- Raw material for the manufacturing of finished products such as boards, paper, shapes, yarns etc
- Loose insulating fill for complex spaces and areas where access is difficult
- Packing expansion joints
- Packing material for temporary repair of insulation
- Fibre reinforcement for insulating concretes and cements
- Precursor for engineered fibres

Cerafiber / Cerachem Fiber / Cerachrome Fiber

Main properties

Maximum continuous use temperature	°C	Cerafiber 1260	Cerachem Fiber 1425	Cerachrome Fiber 1425
Properties Measured at Ambient Conditions (23°C/50% RH)				
Colour		white	white	blue/green
Specific gravity	kg/dm^3	2.65	2.65	2.65
Fibre diameter (average)	micron	3.5	3.5	3.5
High Temperature Performance				
Specific heat capacity at:				
540°C	kJ/kg.K	1.05	1.05	1.05
109°C	kJ/kg.K	1.13	1.13	1.13
Chemical Composition				
SiO_2	%	56	50.0	54.3
Al_2O_3	%	44	34.9	42.6
CaO+ MgO	%	0.5	0.09	0.10
Cr_2O_3	%	-	-	2.8
ZrO_2	%	-	15.2	-
$Fe_2O_3 + TiO_2$	%	0.15	0.15	0.15
$Na_2O + K_2O$	%	0.10	0.10	0.10

Availability and Packaging

All bulk fibres are delivered in cartons of 20kg or bales of 60-80kg

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.