

Denka® Alcen® Blankets

Datasheet Code US: 5-14-265

SDS: 209

Product Description

Denka Alcen Blankets are made from high alumina fibers using the sol-gel process. They are doubled needed for exceptional strength and flexibility for use in applications up to 2912°F (1600°C) in oxidizing, reducing and chemically aggressing atmospheres.

Features

- Low linear shrinkage up to 2912°F (1600°C)
- Low thermal conductivity
- Excellent resistance to Alkali and chemical attack
- Excellent compression resistance and resiliency

Applications

- Reheat Furnace Linings
- Galvanizing Furnace Linings
- Reducing Atmosphere Furnace Linings
- Aluminum Furnaces
- High Firing Ceramics Kiln Linings

Type

Polycrystalline Wool (PCW)

Denka® Alcen® Blankets

Blanket Product Name	Denka Alcen NBK80	Denka Alcen NBK95
Fiber Class	PCW	PCW
Physical Properties		
Color	white	white
Classification Temperature, °F	2912	2912
Classification Temperature, °C	1600	1600
Melting Temperature, °F	3632	3632
Melting Temperature, °C	2000	2000
Density, pcf	6, 8	6
Density, kg/m ³	96, 128	96
Fiber diameter, μm	3-5	3-5
Linear shrinkage, %		
After 24 hrs, isothermal heating @ 2500°F (1371°C)	<1	-
After 24 hrs, isothermal heating @ 2912°F (1600°C)	1.5	-
Chemical Analysis, % weight basis after firing		
Alumina, Al ₂ O ₃	80	95
Silica, SiO ₂	20	5
Other	trace	trace
Thermal Conductivity, BTU·in/hr·ft², per ASTM C201		
<u>Density, pcf</u>	<u>6</u>	<u>6</u>
500°F	0.38	-
1000°F	0.74	-
1500°F	1.3	-
2000°F	2.07	-
2500°F	3.04	-
Thermal Conductivity, W/m·K, per ASTM C201		
<u>Density, kg/m³</u>	<u>96</u>	<u>96</u>
260°C	0.05	-
538°C	0.11	-
816°C	0.19	-
1093°C	0.3	-
1371°C	0.44	-

The values given herein are typical average 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 Morgan Advanced Materials office to obtain current information.