

Kaowool® Wet Felt and Kaowool Wet Felt ZR

Description

Kaowool Wet Felt and Kaowool Wet Felt ZR are manufactured from Cerablanket® and Cerachem® Blanket, respectively, which has been soaked in a specially formulated rigidizing solution that causes the blanket to harden when exposed to ambient air and/or heat. They are a "hot face" refractory insulation barrier that are designed for direct exposure to process atmospheres and can be fitted to a variety of surface contours. When dried or fired, they become a lightweight resilient insulator which can be sawed, cut, or sanded.

Kaowool Wet Felt and Kaowool Wet Felt ZR are highly efficient insulators. The longer fibers give them the high tensile strength and resiliency to withstand vibration and physical abuse. Kaowool Wet Felt and Kaowool Wet Felt ZR have low thermal conductivity, low heat storage, and are extremely resistant to thermal shock.

Features

- Highly efficient insulator
- Good green strength and may be formed or molded
- Completely inorganic

Applications

- Line troughs and areas contacted with molten aluminum
- Interior of dryers
- Curved areas in ovens
- Insulation for pipe wrap

Kaowool® Wet Felt and Kaowool Wet Felt ZR

Physical Properties	Kaowool Wet Felt	Kaowool Wet Felt ZR
Color	white	white
Density, pcf (kg/m ³)	15 - 20 (240 - 320)	15 - 20 (240 - 320)
Modulus of Rupture, psi (MPa)	115 (0.79)	115 (0.79)
Permanent Linear Shrinkage, %, after 24 hours		
@ 1800°F (982°C)	1.9	-
@ 2100°F (1149°C)	3.1	-
Continuous use limit, °F (°C)	2300 (1260)	2300 (1260)
Melting point, °F(°C)	3200 (1760)	3200 (1760)
Chemical Analysis, %, weight basis after firing		
Silica, SiO ₂	70 - 78	70 - 76
Alumina, Al ₂ O ₃	22 - 26	17 - 20
Zirconia oxide, ZrO ₂	-	8 - 10
Ferric oxide, Fe ₂ O ₃	<0.1	<0.1
Titanium oxide, TiO ₂	<0.1	<0.4
Thermal Conductivity, BTU•in./hr•ft ² •°F (W/m•K), ASTM C 201		
Mean temperature, 15 pcf		
@ 500°F (260°C)	0.5 (0.07)	0.8 (0.07)
@ 1000°F (538°C)	0.9 (0.13)	0.9 (0.13)
@ 1500°F (816°C)	1.2 (0.17)	1.2 (0.17)
Availability*	Sheets, in (cm)	Sq. Ft/Carton (M ² /Carton)
Thickness, in (cm)		
1/4 (0.625)	24 x 36 (60 x 90)	36 (3.34)
1/2 (1.25)	24 x 36 (60 x 90)	24 (2.23)
3/4 (1.875)	24 x 36 (60 x 90)	18 (1.67)
1 (2.5)	24 x 36 (60 x 90)	12 (1.11)

* Full carton orders only

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.