



TECHNICAL DATA SHEET

Ceramic Fiber Weaved Cloth

DESCRIPTION:

Our ceramic fiber cloth comes standard with fiberglass filament or inconel wire reinforcement, which is a woven fabric that is manufactured from high purity alumino-silicate based ceramic fiber. The product is white and odorless, suitable for high temperature applications up to 2300°F.



Benefits

- Low thermal conductivity, low heat storage, high temperature stable, thermal shock resistant
- Fire and flame proof
- Chemical resistant, compatible with most corrosive chemicals, commonly used acid and alkali (exceptions are hydrofluoric, phosphoric acids and concentrated alkalis)
- Lightweight, woven texture with excellent handling strength

Typical Applications

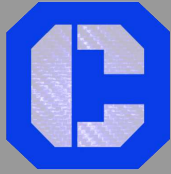
- Safety and protective insulation cover, curtains, blanket, welding blanket
- Expansion joint fabric
- Insulation wrapping material for cable, wire, pipe, exhaust, etc.
- Gaskets, tadpole gasket and other high temperature insulation seal

Technical Specifications Board

Chemical Composition (%)		
Chemical Contents	Unit	Cloth
Al ₂ O ₃	%	>97%
SiO ₂	%	>97%
Al ₂ O ₃	%	47%
Fe ₂ O ₃	%	<1.1%

Typical Physical Properties		
Type	Unit	Cloth
Refractory Fiber Content	%	>85%
Weight Loss (1800°F)	%	8 - 10%

Fiber Physical Properties		
Type	Unit	Cloth
Fiber Diameter	microns	2 - 4
Fiber Length	mm	100 - 250
Fiber Shrinkage	(1800°F, 3h)	<3.5%



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Temperature Ratings:		
Type	Unit	Cloth
Continuous Use	°F	1800°F
Maximum Use	°F	2300°F
Specific Heat (@2000°F)	-	0.27 Btu/lbs. °F

Insulation Properties:		
Working Temperature	Thermal Conductivity of Fiber	
	(BTU/sq. ft °F/in)	(W/m°K)
570°F	0.84	(0.12)
1100°F	0.91	(0.13)
1800°F	1.19	(0.17)

Size, Density, and Tensile:							
Type	Thickness	Length	Width	Weight		Tensile Strength	
						Warp	
Fiber Glass & Chrome Wire (Inconel)	3mm (1/8")	30m (98.4')	1m (39.4")	43 oz./sq yd	96.9 lb./roll	165 lb. at 70°F	80 lb. at 70°F
	-	-	-	-	-	50 lb. at 1800°F	22 lb. at 1800°F

Product Handling and Safety Information

- Protective gloves, clothing, and mask are recommended for product handling
- Airborne fiber dust should always be kept down
- Ceramic fiber may cause itching and irritation to skin and eyes by contact
- If inhaled in sufficient amount of ceramic fiber, it may cause irritation to respiratory tract, scratchiness of the nose or throat, cough or chest discomfort
- Ceramic fiber is classified in Group 2b (possible human carcinogen) by IARC Based on animal study, it is a possible cancer hazard by prolonged heavy inhalation of this fiber. (In animal studies, long-term laboratory exposure to doses hundreds of times higher than normal occupational exposures has produced fibrosis, lung cancer, and mesothelioma in rats or hamsters. The fibers used in those studies were specially sized to maximize rodent respirability)
- For detailed information, please refer to the product SDS