

CCEWOOL® PUREWOOL® RCF Blanket for Fabrication



Temperature Grades 1260°C (2300°F) and 1430°C (2600°F)

CCEWOOL® PUREWOOL® RCF Blanket for Fabrication is a high-purity ceramic fiber blanket developed for demanding high-temperature engineering applications. The product is manufactured using high-purity synthetic raw materials including alumina, silica, and zirconia. Through optimized formulation and fiberization technology, the

blanket achieves higher fiber purity, lower impurity levels, and a cleaner white fiber appearance. As a result, the material offers lower shrinkage, improved thermal insulation performance, and greater structural stability under high-temperature operating conditions.

Compared with conventional industrial-grade ceramic fiber blankets, PUREWOOL® RCF Blanket for Fabrication provides improved fiber length, structural uniformity, and mechanical strength. The blanket is produced using an extra-long spun fiber structure combined with double-sided internal needling, creating a stable three-dimensional interlocking fiber network throughout the material. This structure significantly enhances the tensile strength and overall structural integrity of the blanket, with tensile strength reaching up to 90 kPa.

CCEWOOL® PUREWOOL® RCF Blanket also offers excellent Fabrication compatibility. The material can be easily cut, layered, or structurally processed to meet specific engineering requirements for high-temperature insulation systems in industrial equipment. In addition, CCEWOOL® provides the blanket in a wide range of thicknesses, widths, and densities, allowing customers to select the most suitable configuration to improve energy efficiency and insulation performance in different industrial applications.

Characteristics:

Engineering-grade high-purity refractory ceramic fiber blanket;

High-purity synthetic raw materials with extremely low impurity content;

- Clean white fiber color and uniform fiber structure;
- Ultra-long spun fiber structure;
- Double-sided needle-punched reinforcement for enhanced structural stability;
- High tensile strength (up to 90 kPa);
- Low thermal conductivity with excellent insulation performance;
- Low shrinkage at elevated temperatures;
- Suitable for Fabrication and secondary processing.

Applications:

Suitable for high-temperature equipment where superior insulation performance and structural stability are required, including:

Industrial Furnaces and Kilns

- Furnace lining insulation layers
- Heat treatment furnace insulation systems
- Combustion chamber insulation structures

Metallurgical Equipment

- Reheating furnace linings
- Furnace door sealing insulation
- High-temperature pipeline insulation

Petrochemical Equipment

- Process heater insulation systems
- Piping and flue insulation

Other High-Temperature Equipment

- Thermal insulation systems for industrial equipment
- Furnace lining repair and reinforcement structures

TDS:

CCEWOOL® PUREWOOL® RCF Blanket for Fabrication		
Classification temperature	1260(2300°F)	1430(2600°F)
Operation Temp(°C)(°F)	1100°C(2012°F)	1350°C(2462°F)

Density (kg/m ³)	96/ 128/ 160 (6,8,10lb/ft ³)		
Shot Content(%)	≤12		
Color	White		
Chemical Composition of refractory ceramic blanket (%)			
Al ₂ O ₃	≥44		≥35
SiO ₂	≥55		≥49
ZrO ₂	-		≥15
Permanent Change on Heating (%), EN1094-1 After 24 hours			
®950°C (1742°F)	-		-
®1000°C (1832°F)	1.5		-
®1100°C (2012°F)	2		-
®1200°C (2192°F)	2.7		1
®1300°C (2372°F)	5.5		2
®1400°C (2552°F)			3
Tensile Strength(Kg/m ³), EN1094-1 KPa			
64kg/m ³ (4lb/ft ³)	-		-
96kg/m ³ (6lb/ft ³)	60		60
128kg/m ³ (8lb/ft ³)	90		90
160kg/m ³ (10lb/ft ³)	130		130
Heat Conductive Co-efficient W/(m·k)(128kg/m ³)			
200°C (392°F)	0.07		0.06
400°C (752°F)	0.12		0.1
600°C (1112°F)	0.2		0.15
800°C (1472°F)	0.3		0.2
1000°C (1832°F)	0.35		0.3

Thickness	Density (kg/m ³)				Length	Width
	64	96	128	160		
mm	64	96	128	160	mm	mm

6	-	-	○	○	7200	610, 1220
13	-	√	√	○	14640	
19	-	√	√	○	9760	
25	○	√	√	√	7320	
38	○	√	√	√	4880	
50	○	√	√	-	3660	

Thickness	Density (lb/ft3)				Length	Width
	4#	6#	8#	10#		
in					in	in
1/4"	-	-	○	○	300"	24",48"
1/2"	-	√	√	○	600"	
3/4"	-	√	√	○	400"	
1"	○	√	√	√	300"	
3/2"	○	√	√	√	200"	
2"	○	√	√	-	150"	

Note: (√) is standard size, Custom size are available

