

## CCEWOOL® Polycrystalline Wool Fiber Blanket



Temperature Grade 1600°C (2912°F)

CCEWOOL® Polycrystalline Wool Fiber

Blanket is an ideal choice for high-temperature and chemically corrosive applications.

CCEWOOL® Polycrystalline Wool Fiber

Blanket is produced using sol-gel technology

to create fibers of specific dimensions, which are then formed into blankets through a double-sided needling process. The product exhibits excellent strength and flexibility. It is a refractory fiber that exists in the form of mullite crystal phases and maintains its outstanding dimensional stability and elasticity even at high temperatures. The introduction of polycrystalline fiber blankets has effectively filled the gap in the field of fibers for long-term use at temperatures ranging from 1350°C (2462°F) to 1500°C (2732°F).

Polycrystalline fiber blankets are more resistant to acids and alkalis than refractory ceramic fibers and perform exceptionally well in high-temperature environments subjected to oxidation, reduction, and chemical corrosion.

CCEWOOL® Polycrystalline Wool Fiber Blanket is virtually free of shot, resulting in extremely low thermal conductivity and excellent thermal insulation properties.

### Characteristics:

- Almost no shot, white color, and high purity of raw materials;
- Good high temperature resistance and good high-temperature stability;
- Extremely low thermal conductivity, low linear shrinkage after heating;
- Stable chemical properties and strong corrosion resistance;
- Uniform fiber diameter and high tensile strength;
- Excellent thermal stability and thermal shock resistance;
- Excellent chemical stability;

High tensile strength;

Low thermal conductivity;

Low heat capacity;

High thermal reflectance;

Excellent thermal strength.

### **Application:**

Hot surface lining insulation of high temperature industrial furnace;

Wrapping of burner block;

Expansion joint;

High temperature gasket in smelting furnace;

Insulation of boilers, tanks, and furnaces in the power generation industry;

Insulation of engines, mufflers, and exhaust systems in the automotive industry;

Insulation for the shipbuilding industry, ships, and oil drilling platforms;

New energy industry, battery fireproof covers, etc.

### **TDS**

<b>CCEWOOL® Polycrystalline Wool Fiber Blanket</b>	
Classification Temperature(°C)(°F)	1600°C (2912°F)
Continuous Temperature Use Limit (°C)(°F)	1500°C (2732°F)
Chemical Composition (%)	
Al <sub>2</sub> O <sub>3</sub> (%)	71-73
SiO <sub>2</sub> (%)	27-29
Leachable Chlorides	Trace
Color	White
Tensile Strength(kPa)	≥80
Permanent Linear Shrinkage (%)	1400°C x24h<1.0
Thermal Conductivity (W/m-K)	

400°C	0.09
600°C	0.16
800°C	0.22
1000°C	0.28
1200°C	0.36
1400°C	0.45

Specifications	
Thickness	3-25mm (0.12"-1")
Width	610mm (24")
Length	7200mm, 10800mm, 14400mm, etc., can be customized
Density	96kg/m3 (6lb/ft3)
	128kg/m3 (8lb/ft3)
	160kg/m3 (10lb/ft3)

