

CCEWOOL® Polycrystalline Wool Paper



Classification Temperature: 1600°C (2912°F)

Chemical Composition: Alumina, Silica

CCEWOOL® Polycrystalline Wool Paper is a high-performance flexible insulation material developed for ultra-high-temperature applications, with long-term temperature resistance up to 1600°C. It is made primarily from high-purity alumina fiber with a selected binder system through an advanced forming process, providing uniform fiber distribution and stable thickness and density.

The product offers excellent flame resistance, thermal insulation, and electrical insulation, together with good resistance to high and low temperatures and aging. It is halogen-free, non-toxic, and odorless, with stable dielectric performance for reliable thermal, fire, and electrical protection.

CCEWOOL® Polycrystalline Wool Paper is lightweight, flexible, shot-free, and easy to cut and form. It can be used directly for high-temperature insulation and electrical encapsulation and is also well suited for Fabrication processing into custom-shaped components, insulation gaskets, thermal barriers, and customized high-temperature protection parts.

With its ultra-high-temperature capability, stable electrical insulation, and good Fabrication adaptability, it is widely used in thermal insulation, fire protection, electrical insulation, protective separation, and battery thermal safety applications.

Characteristics:

- Excellent high-temperature stability;
- Low thermal conductivity and excellent insulation performance;
- Shot-free and clean fiber structure;
- Good resistance to acids, alkalis, and chemical corrosion;
- Low heat storage;
- Lightweight, strong, and flexible;

High compressive strength;
Excellent electrical insulation and aging resistance;
Low smoke, non-toxic, and flame-resistant.

Applications:

Lightweight insulation for high-temperature furnaces and heat-treatment systems up to 1600°C;
Furnace wall linings and backup insulation;
High-temperature gaskets, seals, and equipment sealing;
Expansion joint and flexible structure insulation;
Separator material in multilayer foil vacuum furnace insulation systems;
Backup insulation for molten metal troughs, furnaces, and heat-treatment equipment;
Separation and barrier layers for brazing, heat treatment, metal forming, and diffusion bonding;
Electrical insulation in high-temperature environments;
Thermal and fire protection for battery cells;
Insulation and flame protection for electronic products;
Substrate or reinforcement layer for aerogel composite insulation materials.

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CCEWOOL® Polycrystalline Wool Fiber Paper		
Test Item	Standard	Technical Specifications
Appearance	-	Smooth, no impurities
Insulation Performance 1000V DC	Under condition of 1000V DC, test time 60s	Insulation resistance ≥ 500MΩ
Fiber Diameter	-	5.5~7.5μm
Tensile Strength	GBT 17911-2018	≥ 200kPa
Flame Retardance Property	UL94-V0	Complies with Standards
Thermal Conductivity	GB/T 10297-2015	≤ 0.04w/m·k
ELV	EU ELV Directive 2000/53/EC	Complies with Standards

Specification								
Thickness (mm)	0.30	0.60	0.80	1.00	2.00	3.00	4.00	5.00

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Area Density (g/m2)	20	60	80	100	250	400	550	700
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