

CCEWOOL® Ceramic Fiber Textile
- CCEWOOL® Ceramic Fiber Rope

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CCEWOOL® ceramic fiber textile includes ceramic fiber yarn, cloth, tape and rope. Using ceramic fiber bulk as raw material and made from ceramic fiber strand, CCEWOOL® ceramic fiber textile offers excellent insulation property.

Temperature degree: 1260°C (2300°F)

CCEWOOL® Ceramic Fiber Rope

Description:

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CCEWOOL® ceramic fiber rope is made from high quality ceramic fiber bulk, adding light yarn through special technology. It can be divided into twisted rope, square rope and round rope. According to different working temperature and applications to add glass filament and inconel as reinforced materials, it is typically used in high temperature and high pressure pump and valve as seals, mainly for insulation application.

Technical data and Size:

CCEWOOL® Classic series Ceramic Fiber Rope

Classification	1260	
Temperature (°C)	1260	
Name	Glass Filament Reinforced Rope	Inconel Wire Reinforced Rope
Density (kg/m³)	500	
Long-term Operation Temp	550	1050
Water Content	≤2	
Organic Content (%)	≤15	
Shrinkage at 982°C (%)	-1	
Packing of ceramic rope	Braided Bag	

Ceramic fiber round rope	Diameter: 5-150mm
Ceramic fiber square rope	Size: 5-150mm
Ceramic fiber twisted rope	Diameter: 3-50mm

Raw Materials

CCEWOOL ceramic fiber ropes are woven from high-quality ceramic fiber yarn.

Controlling the content of impurities is an important step to ensure the heat resistance of ceramic fibers. High impurity content can cause the coarsening of crystal grains and the increase of linear shrinkage, which is the key reason for the deterioration of fiber performance and the reduction of its service life.

Through strict control at each step, we reduce the impurity content of the raw materials to less than 1%. The CCEWOOL ceramic fiber rope is pure white, and

the linear shrinkage rate is lower than 2%. The quality is more stable, and the service life is longer.

With the imported high-speed centrifuge of which the speed reaches up to 11000r/min, the fiber formation rate is higher. The thickness of the produced CCEWOOL ceramic fiber textile cotton is uniform and even, and the slag ball content is lower than 8%. The content of the slag ball is an important index that determines the thermal conductivity of the fiber, so CCEWOOL ceramic fiber rope has low thermal conductivity and excellent thermal insulation performance.

Production Process

The kind of organic fiber determines the flexibility of ceramic fiber ropes. CCEWOOL ceramic fiber ropes use organic fiber viscose with less than 15% loss on ignition and stronger flexibility.

The thickness of glass determines the strength, and the material of steel wires determines the corrosion resistance. CCEWOOL adds different reinforcing materials such as glass fiber and heat-resistant alloy wires to ensure the quality of the ceramic fiber rope according to different operating temperatures and conditions.

CCEWOOL ceramic fiber ropes have three types available including round ropes, square ropes and twisted ropes according to customers' usage, sizes ranging from 5 to 150mm.

The outer layer of CCEWOOL ceramic fiber ropes can be coated with PTFE, silica gel, vermiculite, graphite, and other materials as heat insulation coating to improve their tensile strengths, erosion resistance and abrasion resistance.

Quality Control

Each shipment has a dedicated quality inspector, and a test report is provided prior to the departure of products from the factory to ensure the export quality of each shipment of CCEWOOL.

A third-party inspection (such as SGS, BV, etc.) is accepted.

Production is strictly in accordance with ISO9000 quality management system certification.

Products are weighed before packaging to ensure that the actual weight of a single roll is greater than the theoretical weight.

The outer packaging of each carton is made of five layers of kraft paper, and the inner packaging is a plastic bag, suitable for long-distance transportation.

Application Performance

CCEWOOL ceramic fiber ropes have high-temp resistance, low thermal conductivity, thermal shock resistance, low heat capacity, excellent high temperature insulation performance, and a long service life.

CCEWOOL ceramic fiber ropes can resist the corrosion of non-ferrous metals, such as aluminum and zinc; they have good low-temp and high-temp strengths.

CCEWOOL ceramic fiber ropes are non-toxic, harmless, and have no adverse effects on the environment.

Because of the above advantages, CCEWOOL ceramic fiber ropes are widely used in chemical, electric power, paper, food, pharmaceutical and other industries for high-temp pipeline insulation and sealing, cable insulation coating, coke oven opening sealing, cracking furnace brick wall expansion joints, sealing of electric furnace and oven doors, boilers, sealing components of high-temp gases, and connections between flexible expansion joints, etc.