CCEWOOL Thermomax Inc.

# CCEWOOL® Soluble Fiber - CCEWOOL® Soluble Fiber Paper

## CCEWOOL® Soluble Fiber

CCEWOOL® soluble fiber is made from alkaline earth silicate fiber, including soluble blanket, board, paper, yarn, cloth, tape and rope. Soluble fiber is a body soluble fiber and can be absorbed, the color is bluish, is a new type eco-friendly insulation material. Temperature degree: 1200℃.

## CCEWOOL® Soluble Fiber Paper

## Description:

Temperature degree: 1200℃.

CCEWOOL® soluble paper is made from alkaline earth silicate fiber consisting SiO2, MgO, CaO with certain organic binders. We supply soluble paper whose thickness is from 0.5mm to 12mm, which can be used in many applications at temperatures up to 1200℃.

## Technical data and Size:

| CCEWOOL® Soluble Fiber Paper | |
|---|---|
| **Classification temperature** | 1200 ℃ |
| **Density, Kg/m3** | 190-210 |
| **Operation temperature** | 1000℃ |
| **Melting point** | >1300℃ |

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| | |
|---|---|
| **Tensile strength(Kpa)** | >250 |
| **Loss on ignition (wt%)** | 9 |
| **Permanent Linear shrinkage, % ENV(1094-1)** | |
| **After 24 hours @1000℃** | 1.5 |
| **Thermal conductivity (%)** | |
| **400℃** | 0.1 |
| **600℃** | 0.16 |
| **800℃** | 0.22 |
| **Chemical composition (%)** | |
| **SiO2** | 65-68 |
| **CaO+MgO** | 27-33 |
| **others** | <=3% |
| **Specification (MM)** | 60000*610*1;30000*610*2 |
| | 20000*610*3;15000*610*4 |
| | 12000*610*5;10000*610*6 |
| | Min Width: 5cm |
| **Package** | Inner Plastic Bag+Outer Carton |

## Raw Materials

CCEWOOL soluble fiber paper uses high-quality soluble fiber cotton.

Because of the supplements of MgO, CaO and other ingredients, CCEWOOL soluble fiber cotton can expand its viscosity range of fiber formation, enhance its fiber formation conditions, improve fiber formation rate and fiber flexibility, and reduce the content of slag balls, so the CCEWOOL soluble fiber papers have better flatness. As slag ball content is an important index that determines the

thermal conductivity of fibers, the thermal conductivity of CCEWOOL soluble fiber paper is only 0.16w/m.k at a hot surface temperature of 1000°C.

Controlling the impurity content of raw materials is an important step to ensure the heat resistance of ceramic fibers. The high impurity content will cause the coarsening of crystal grains and the increase of linear shrinkage, which is an important factor attributing to the deterioration of fiber performance and the reduction of service life.

Through strict control at every step, we reduced the impurity content of raw materials to less than 1%. The thermal shrinkage rate of CCEWOOL soluble fiber papers is lower than 1.5% at 1200 ℃, and they have stable quality and longer service life.

## Production Process

CCEWOOL ceramic fiber paper is made by the wet molding process, which improves the slag removal and drying processes based on the traditional technology. The fiber has a uniform and even distribution, pure white color, no delamination, good elasticity, and strong mechanical processing capability.

The full-automatic soluble fiber paper production line has a full-automatic drying system, which makes drying quicker, more thorough, and even. The products have good dryness and quality with the tensile strength higher than 0.4MPa and high tear resistance, flexibility, and thermal shock resistance.

The minimum thickness of CCEWOOL ceramic fiber soluble paper can be 0.5mm, and the paper can be customized to a minimum width of 50mm, 100mm and other different widths. Special-shaped ceramic fiber soluble paper parts and gaskets of various sizes and shapes can be customized, too.

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## 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

**Insulation use:**

CCEWOOL flame-retardant soluble fiber paper has high-strength tear resistance, so it can be used as a splash-proof material for alloys, a surface material for heat-resistant plates, or a fireproof material.

CCEWOOL soluble fiber paper is treated with impregnation coating surface to eliminate air bubbles. It can be used as an electrical insulation material and in industrial anti-corrosion and insulation, and in the production of fireproof tools.

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**Filter purpose:**

CCEWOOL soluble fiber paper can also collaborate with glass fiber to produce air filter paper. This high-efficiency soluble fiber air filter paper has the characteristics of low air flow resistance, high filtration efficiency and temperature resistance, corrosion resistance, stable chemical performance, environment-friendliness, and non-toxicity.

It is mainly used as air purification in large-scale integrated circuits and electronics industries, instrumentation, pharmaceutical preparations, national defense industries, subways, civil air-defense construction, foods or biological engineering, studios, and filtration of toxic smoke, soot particles and blood.

**Sealing use:**

CCEWOOL soluble fiber paper has excellent mechanical processing capabilities, so it can be customized to produce special-shaped ceramic fiber paper parts of various sizes and shapes and gaskets, which have a high tensile strength and low thermal conductivity.

Special-shaped soluble fiber paper pieces can be used as heat insulation sealing materials for furnaces.

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