

CCEWOOL® Inorganic Ceramic Fiber Board

Description:

Temperature degree: 1260°C (2300°F), 1400°C (2550°F), 1430°C(2600°F)

CCEWOOL inorganic ceramic fiber board is produced with high purity ceramic fiber bulk, which has super low shot content, as raw material. And is produced through self developed production lines, adding inorganic binders. And the inorganic ceramic fiber board is formed. CCEWOOL inorganic ceramic fiber board does not contain organic matter, and is smokeless and odorless under high temperature. It is the most ideal environmentally friendly high temperature heat insulation board for household wall-hung boilers, electric stoves, ovens, etc.

Technical data and Size:

CCEWOOL® Inorganic Ceramic Fiber Board				
ITEM	1260 STD Ceramic Fiber Board	1260 HP Ceramic Fiber Board	1400 Ceramic Fiber Board	1450 HZ Ceramic Fiber Board
Operation Temp (°C)	1050°C(1922 °F)	1100°C(2012 °F)	1200°C(2192 °F)	1350°C(2462 °F)
Density (kg/m3)	300~500			
Organic Content (%)	≤1.50	≤1.40	≤1.30	≤1.10
Heating Shrinkage (%)	1000°C×24h≤ -4	1100°C×24h≤ -4	1200°C×24h≤ -4	1350°C×24h≤ -4

Thermal Conductivity(500 °C) W/ (mk)		≤0.153			
Chemical Composition	Al ₂ O ₃ (%)	36~38	39~42	45~47	-
	Al ₂ O ₃ +SiO ₂ (%)	≧ 96	≧ 98	≧ 99	-
	ZrO ₂ (%)	-	-	-	≧ 15
	Al ₂ O ₃ +SiO ₂ +ZrO ₂ (%)	-	-	-	≧ 99
	Fe ₂ O ₃ (%)	≤0.8	≤0.2	≤0.2	≤0.2
	Na ₂ O+K ₂ O (%)	≤0.5	≤0.2	≤0.2	≤0.2
Normal Sizes (mm)	Normal Size: 600×400×10-50mm, 900×600×10-100mm ,1200×1000×10-100mm				

Raw Materials

CCEWOOL inorganic ceramic fiber board use high-purity ceramic fiber cotton as the raw material.

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 inorganic ceramic fiber board we produce are pure white, and the linear shrinkage rate is lower than 2% at the hot surface temperature of 1200°C. 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 is uniform and even, and the slag ball content is lower than 10%, leading to better flatness of the CCEWOOL inorganic ceramic fiber board. The content of the slag ball is an important index that determines the thermal conductivity of the fiber, and the thermal conductivity of CCEWOOL ceramic fiberboard is only 0.112w/m.k at the hot surface temperature of 800°C.

Production Process

1. Thickness range of CCEWOOL inorganic ceramic fiber board 10-150mm.
Density range:380-400kg/m³
2. CCEWOOL inorganic ceramic fiber board is produced with inorganic binder. It doesn't contain organic matter. It is smokeless, odorless and doesn't change color when being exposed to open fire or high temperature.
3. Compared with organic board, CCEWOOL inorganic ceramic fiber board has higher compressive strength and rupture strength.
4. CCEWOOL inorganic ceramic fiber board has higher stability, better flatness and more precise size.
5. CCEWOOL inorganic ceramic fiber board can be cut and processed at will, and the construction is very convenient.

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

High chemical purity in products:

The content of high-temperature oxides, such as Al_2O_3 and SiO_2 , reaches 97-99%, thus ensuring the heat resistance of products. The maximum operational temperature of CCEWOOL ceramic fiberboard can reach 1600 °C at the temperature grade of 1260-1600 °C.

CCEWOOL ceramic fiber boards can not only replace calcium silicate boards as the backing material of furnace walls, but also can be directly used on the hot surface of furnace walls, giving which excellent wind erosion resistance.

Low thermal conductivity and good thermal insulation effects:

Compared with traditional diatomaceous earth bricks, calcium silicate boards and other composite silicate backing materials, CCEWOOL ceramic fiber boards have lower thermal conductivity, better thermal insulation, and more significant energy saving effects.

High strength and easy to use:

The compressive strength and flexural strength of CCEWOOL ceramic fiberboards are both higher than 0.5MPa, and they are a non-brittle material, so they fully meet the requirements of hard backing materials. They can completely replace blankets, felts, and other backing materials of the same kind in insulation projects with high strength requirements.

CCEWOOL inorganic ceramic fiber board is widely used in household wall-hung boilers, electric stoves, ovens, etc., as well as the insulation layer of industrial kilns. It can be used to replace organic ceramic fiber boards, insulation bricks, calcium silicate boards and other insulation materials. It is the favourite insulation material of civil furnaces and industrial furnaces in the new era.