

CCEWOOL® 650 °C Calcium Silicate Board

Description:

Temperature degree: 650°C

CCEWOOL® 650°C calcium silicate board is a new type white and hard insulation material, characterized with lightweight, high strength, low thermal conductivity, high temperature resistance, corrosion resistance, cutting. The refractoriness is 650C, can be widely used in power plant, refining, petrochemical, building, vessel filed. The general thickness is between 25mm to 120mm, density ranges from 250kg/m3 to 300kg/m3.

Technical data and Size:

CCEWOOL® 650°C Calcium Silicate Board		
Classification Temperature	650°C	650°C
Bulk Density (kg/m3)	230±10	280±10
Rupture Strength (Mpa)	0.323	0.323
Compressive Strength (Mpa)	1.4	1.4
Thermal Conductivity (W/m.k.)		
200C	0.07	0.07
400C	0.1	0.1

Linear Shrinkage (%)		
@1000°C, 16hrs	≤2	≤2
Size (mm)	500x500x50~120; 600x300x50~120	500x500x25~50; 600x300x25~50
Packing	Carton or wooden pallet	

Raw Materials

Calcareous materials: slaked lime powder, cement, calcium carbide mud, etc.

Reinforcing fiber: wood paper fiber, wollastonite, cotton fiber, etc.

Main ingredients and formula: silicon powder + calcium powder + natural log pulp fiber.

Production methods include a molding method, a wet-process method, and a flow method. The common method is generally the extrusion method. After the raw materials are fully stirred and matured based on the designed ratio, they are extruded and shaped by a roller machine and shaped at a high temperature.

Production Process

1. Accurate sizes, polished on both sides and cut on all sides, convenient for customers to install and use, and the construction is safe and convenient.
2. Calcium silicate boards of various thicknesses available with the thickness ranging from 25 to 100mm.

3. Safe operational temperature up to 650°C, 350°C higher than ultra-fine glass wool products, and 200°C higher than expanded perlite products.
4. Low thermal conductivity ($\gamma \leq 0.56 \text{w/m.k}$), much lower than other hard insulation materials and composite silicate insulation materials.
5. Small volume density; the lightest among the hard insulation materials; thinner insulation layers; much less rigid support required in construction and low installation labor intensity.
6. CCEWOOL calcium silicate boards are non-toxic, tasteless, unable to burn, and have high mechanical strengths.
7. CCEWOOL calcium silicate boards can be used repeatedly for a long time, and the service cycle can last several decades without sacrificing the technical indicators.
8. High strengths, no deformation within the operational temperature range, no asbestos, good durability, water and humidity proof, and can be used for heat preservation and insulation of various high-temp insulation parts.
9. White appearance, beautiful and smooth, good flexural and compressive strengths, and low loss during transportation and use.

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

Fire prevention

CCEWOOL calcium silicate boards are a non-combustible A1 grade material, so in the event of a fire, boards will not burn or produce toxic smoke.

Waterproof performance

CCEWOOL calcium silicate boards have good waterproof performance. It can still maintain stable performance in highly humid places without swelling or deformation.

High strengths

CCEWOOL calcium silicate boards have high strengths; they are solid and reliable, hard to be damaged and broken.

Dimensionally stable

CCEWOOL calcium silicate boards are produced with advanced formula and under strict quality control. The wet expansion and dry shrinkage of the boards are controlled within the ideal range.

Heat and sound insulation

CCEWOOL calcium silicate boards have good heat and sound insulation effects.

Long service life

CCEWOOL calcium silicate boards are stable, resistant to acid and alkali and corrosion, free from damage by moisture or insects, and can guarantee a long service life.