

CCEWOOL® Vacuum-Formed Bio Soluble Fiber Shapes

Classification Temperature: 1200°C (2192°F), 1300°C (2372°F)

Chemical Composition: Silica, Calcium Oxide, Magnesium Oxide

CCEWOOL® Vacuum-Formed Bio Soluble Fiber Shapes are rigid insulation components developed for customized Fabrication applications. Made from our own high-quality alkaline earth silicate (AES) bio-soluble fiber, the products are manufactured through vacuum forming and high-temperature curing. Based primarily on a SiO_2 -MgO-CaO composition, they combine reliable thermal insulation and high-temperature stability with the low-biopersistence characteristics of AES fiber, providing an alternative to conventional refractory ceramic fiber shapes.

These products are not simply secondary-processed boards or bulk fiber. They are specifically developed for Fabrication customization to meet different equipment requirements for shape, dimensions, strength, and installation fit. Through vacuum forming, CCEWOOL® can manufacture complex geometries and customized dimensions according to customer drawings.

CCEWOOL® Vacuum-Formed Bio Soluble Fiber Shapes are suitable for burner areas, observation ports, hot-air passages, flame barriers, furnace door linings, and other localized high-temperature structures. They maintain good structural integrity under flame exposure, hot gas flow, and demanding thermal conditions. Their good wear resistance, spalling resistance, and non-wetting behavior toward many molten metals also make them suitable for customized components in aluminum, metallurgy, petrochemical, and heat-treatment equipment.

Combining the low-biopersistence AES fiber system with customized Fabrication capability, CCEWOOL® Vacuum-Formed Bio Soluble Fiber Shapes provide a reliable and structurally adaptable insulation solution for high-temperature equipment.

Characteristics:

Maintains structural integrity under continuous high-temperature service;

Low-biopersistence AES fiber system;

Customizable complex shapes with good dimensional accuracy;

Suitable for direct flame exposure;

High strength and impact resistance;

Low shrinkage and low thermal conductivity;

Excellent high-temperature strength and thermal stability;

Good chemical stability.

Applications:

Industrial furnace observation ports and thermocouple openings

Burner blocks for industrial furnaces

Furnace door components and linings

Troughs and launders for aluminum processing

Radiant heat insulation for commercial and industrial heating equipment

Furnace nozzles and furnace door seals

Molten non-ferrous metal transfer channels

Gaskets, covers, soldering fixtures, and electrical equipment insulation components.

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CCEWOOL® Vacuum-Formed Bio Soluble Fiber Shapes		
Classification Temperature (°C)	1200°C(2192°F)	1300°C(2372°F)
Color	Light Bluish	Light Bluish
Density (kg/m³)	300-350	300-350
Modules of Rupture (MPa)	≥0.25	≥0.25
Compressive Strength (MPa, 10% relative deformation)	0.15	0.15
Loss of Ignition (%)	≤7	≤7
Permanent Linear Shrinkage (%)	1100°C x 24h ≤2.0	1260°C x 24h ≤2.0
Thermal Conductivity (W/m·K)		
200°C	0.05	0.05
400°C	0.08	0.07
600°C	0.1	0.1
800°C	0.12	0.11
1000°C	0.14	0.14