CCEWOOL® Bio Soluble Fiber Module

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

Chemical Composition: Silicon, Calcium, Magnesium (AES)

CCEWOOL® Bio Soluble Fiber Module is made from our own high-quality bio-soluble fiber blanket through precision compression forming. It maintains stable thermal insulation and chemical stability at temperatures up to 1300°C (2372°F). The product is lightweight, with low thermal conductivity and low heat storage, helping reduce furnace heat loss and improve thermal efficiency.

The module design takes full advantage of the elasticity and compressibility of the fiber blanket. During installation, adjacent modules are tightly compressed together to compensate for minor deformation of the furnace shell and steel structure, forming a continuous and dense insulation lining. This helps reduce thermal bridges and gaps, making the system particularly suitable for industrial furnaces exposed to thermal cycling and temperature fluctuations.

As a safer high-temperature insulation solution, CCEWOOL® Bio Soluble Fiber Module uses an AES bio-soluble fiber system, combining reliable insulation performance with occupational health and environmental considerations. It is suitable for applications with higher safety and regulatory compliance requirements.

For different furnace types, structural areas, and installation methods, CCEWOOL® Bio Soluble Fiber Module is available in multiple module configurations and anchoring systems. It is widely used for hot-face and backup insulation in furnaces, boilers, kilns, and other high-temperature equipment. The modular design helps shorten installation time and provides a stable, energy-efficient, and environmentally responsible furnace lining solution.

Characteristics:

High-temperature stability up to 1300°C;

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Low thermal conductivity and low heat loss;
Low heat storage for rapid heating and cooling;
Excellent thermal shock resistance;
Lightweight structure;
Binder- and lubricant-free;
Excellent chemical resistance and contamination resistance;
High resistance to gas erosion;
High tensile strength;
Modular design for easy installation;
Multiple connection and anchoring systems available;
Built-in stainless steel anchors;
Low heat loss and low heat storage for improved energy efficiency;
Suitable for rapid furnace cycling.

Applications:

Industrial Furnaces & Heat-Treatment Equipmen

- Heat-treatment furnaces
- Forging furnaces
- Annealing furnaces
- Stress-relieving furnaces
- Carbide heating furnaces

Ceramics & Refractory Industry

- Ceramic tunnel kilns
- Ceramic intermittent kilns
- Ceramic industrial furnace linings

Steel & Metallurgical Industry

- Steel industry furnace linings
- Ladle preheating stands
- High-temperature heating and holding equipment

Energy & Utilities

- Boiler and incinerator linings

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Chimney and pipeline insulation for waste heat boilers in power generation

Petrochemical & Refining

Process heaters

Ethylene cracking furnaces

Ammonia, hydrogen, and methanol reforming units

Delayed coking units

Refinery heaters

Flare stack insulation linings

Flue Gas & Piping Systems

Chimney linings

Flue linings

High-temperature process piping linings

Furnace Structural Areas

Furnace door linings

Furnace covers and removable section insulation linings

TDS

CCEWOOL® Bio Soluble Fiber Module		
Classification Temperature	1200°C(2192°F)	1300°C(2372°F)
Chemical Composition (%)		
SiO2	62 -68	≥70
CaO	26 -32	-
MgO	4-7	-
CaO+MgO	-	≥20
Color	Light Bluish	Light Bluish
Density (kg/m³)(lb/ft³)	160-220 (10-13.75)	160-220 (10-13.75)
Permanent Linear Shrinkage (%)	1200°C x 24h ≤ 1.0	1300°C x 24h ≤3.0
Thermal Conductivity (W/m		

400°C	0.07	0.07
600°C	0.11	0.13
800°C	0.17	0.2
1000°C	0.23	0.3
1200°C	-	0.41

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