

CCEWOOL® LBP Module



Temperature Grades: 1200°C(2192°F),

1300°C(2372°F)

CCEWOOL® LBP Module is a modular furnace lining system manufactured from low biopersistent fiber (AES fiber) blankets, designed for high-temperature insulation in industrial furnace applications. Based on a calcium–magnesium–silicate (AES) fiber composition, the material provides reliable high-temperature insulation performance while

offering improved biopersistence characteristics, helping meet modern industrial requirements for occupational health, safety, and environmental compliance.

During manufacturing, the AES fiber blanket is compressed and pre-fabricated into modular blocks with an integrated anchoring system. Once installed in the furnace lining, the modules release stored compression energy, allowing the fiber structure to remain tightly compressed during furnace operation. This feature effectively compensates for thermal shrinkage and helps maintain the overall sealing integrity of the furnace lining system.

To accommodate different furnace structures and installation methods, CCEWOOL® LBP Module is available in several module configurations, including S-Fold modules, U-Fold modules, L-shaped modules, and stacked modules. Each configuration is designed to optimize fiber orientation and mechanical performance, improving the adaptability and operational stability of the furnace lining system.

CCEWOOL® LBP Module also supports Fabrication customization. Module dimensions, thickness, density, and anchoring systems can be tailored according to furnace design requirements or customer drawings.

Custom-shaped modules and specialized structural modules can also be manufactured to meet the engineering needs of different high-temperature industrial systems.

The modular lining system built with CCEWOOL® LBP Modules significantly reduces heat storage within the furnace lining, improves heating efficiency, shortens installation time, and lowers long-term maintenance costs. As a result, it is widely used in high-temperature equipment across the heat treatment, metallurgy, ceramics, and energy industries.

Characteristics:

High Temperature Stability (up to 1300°C);

Low Thermal Conductivity;

Excellent Thermal Shock Resistance;

Low Heat Storage;

Lightweight Structure;

Rapid Installation System;

Low Dust and Low Shot Content.

Application:

Heat treatment furnaces;

Forging furnaces;

Stress relieving furnaces;

Process heaters;

Annealing furnaces;

Tunnel kilns;

Intermittent ceramic kilns;

Furnace doors and roof linings;

Furnace bottom heating systems;

Chimneys;

Flues and high-temperature duct linings;

Incinerators and boilers;

Ethylene cracking furnaces;



Ammonia, hydrogen, and methanol reformers;

Delayed coking units and refinery heaters;

Ladle preheating systems.

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CCEWOOL® Low Biopersistent Fiber Module		
Classification Temperature	1200°C(2192°F)	1300°C(2372°F)
Chemical Composition (%)		
SiO ₂	62-68	≥70
CaO	26-32	-
MgO	4-7	-
CaO+MgO	-	≥20
Color	Light Bluish	Light Bluish
Density (kg/m ³)(lb/ft ³)	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·K)		
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

