CCEWOOL® Ceramic Fiber Module

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

Chemical Composition: Alumina, Silica, (Zirconia)

CCEWOOL® Ceramic Fiber Module is manufactured from high-quality spun refractory ceramic fiber blanket. The blanket is mechanically pre-compressed, folded into shape, and fitted with an anchoring system according to furnace lining design requirements. The modules can be directly fixed to anchors on the furnace shell to form a continuous and integrated high-temperature insulation lining.

During installation, the modules are further compressed and secured to the furnace shell. Once the restraints are removed, the fibers recover through their natural resilience, creating tight compression joints between adjacent modules. This structure helps compensate for lining shrinkage during high-temperature service, improving sealing, structural stability, and long-term reliability while also reducing installation time and maintenance requirements.

CCEWOOL® Ceramic Fiber Module is available in several standard configurations and also supports Fabrication customization for different furnace designs and installation methods. Module dimensions, thickness, density, folding pattern, and anchoring systems can be customized according to furnace lining designs or engineering drawings.

With excellent thermal insulation, structural integrity, and installation efficiency, CCEWOOL® Ceramic Fiber Module is widely used in high-temperature industrial furnace lining systems and supports lightweight, energy-efficient, and long-service-life lining designs.

Module Types

S-Fold Module

The S-Fold Module uses a continuous corrugated folding structure with uniform fiber arrangement and strong resilience. It effectively compensates for thermal shrinkage and is suitable for large furnace lining areas.

U-Fold Module

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The U-Fold Module uses a U-shaped folding configuration that maintains balanced fiber arrangement and good structural stability, making it suitable for general furnace lining applications.

L-Type Module

The L-Type Module is based on the U-Fold structure with an adjusted fiber orientation, making it more suitable for furnace edges, corners, and transition areas.

Stack Module

The Stack Module is formed by stacking ceramic fiber blanket layers in a controlled arrangement, providing uniform fiber orientation and good structural integrity for lining areas requiring higher installation stability.

Monolithic Formed Module

The Monolithic Formed Module is produced in one piece through a continuous automated process without layered or assembled construction. Its uniform, continuous fiber structure and high compaction density provide excellent structural strength and long-term stability for demanding high-temperature lining applications.

Characteristics:

Excellent chemical and thermal stability;
Low thermal conductivity and low heat capacity;
Multiple anchoring system designs;
Strong expansion compensation capability;
Excellent mechanical flexibility;
Lightweight structure;
Excellent thermal shock resistance;
Ready for operation after installation;
Customizable Fabrication modules.

Applications:

Steel Industry

Linings and insulation for reheating furnaces, continuous annealing furnaces, roller hearth furnaces, car bottom furnaces, rotary furnaces, ladle covers, holding pit covers, and pipeline systems.

Aluminum Industry

Insulation for holding furnaces and covers, discharge furnaces, homogenizing furnaces, melting furnaces, and high-temperature piping systems.

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Petrochemical & Oil and Gas Industry

Process heaters, reformers, ethylene furnaces, pyrolysis furnaces, tubular heaters, and related furnace and piping systems.

Power Generation & Utilities

Industrial boilers, incinerators, combustion chambers, thermal oxidizers, waste heat recovery systems, and boiler piping insulation.

Foundry Industry

Linings for melting furnaces, holding furnaces, and other high-temperature equipment.

Ceramics & Glass Industry

High-temperature insulation for tunnel kilns, intermittent kilns, Hoffman kilns, technical ceramic firing kilns, and glass furnaces.

Industrial Heating Equipment

Industrial heaters, furnace linings, and high-temperature sealing structures.

Flue & Piping Systems

Insulation and protection for chimneys, duct linings, pipelines, and high-temperature conveying systems.

Thermal Energy Storage Systems

Insulation linings for high-temperature thermal storage equipment and related furnace structures.

TDS

CCEWOOL® Ceramic Fiber Module				
Item	1260S	1260HPS	1400	1430HZ
Operation Temp	1050°C(1922°F)	1100°C(2012°F)	1200°C(2192°F)	1350°C(2462°F)
Density	160-220 kg/m3			
Linear Shrinkage EN1094-1 (%)				
®950°C, 24hrs	-	-	-	-
®1000°C,24hrs	1.5	1.5	-	-
®1100°C,24hrs	2.5	2	1.5	-
®1200°C,24hrs	3	2.5	2	1
®1300°C,24hs	-	-	3	2
®1400°C,24hrs	-	-	-	3

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Thermal Conductivity W/(m·k)				
400°C	0.10	0.10	0.10	0.10
600°C	0.18	0.17	0.16	0.15
800°C	0.2	0.20	0.20	0.9
1000°C	0.27	0.26	0.26	0.26
Chemical Composition（%）				
Al2O3	≥43	≥44	≥52	≥35
SiO2	≥54	≥55	≥47	≥49
ZrO2	-	-	-	≥15
Specification （mm）	L×W: 300×300 (12”×12”); 450×300 (18”×12”); 600×300 (24”×12”)			
	H: 100;150;200;250;300 (4”,6”,8”,10”,12”)			
Package	Carton Box or Pallet			

CCEWOOL® Superbloc® Module

Classification Temperature: 1316°C (2400°F), 1430°C (2600°F)

Chemical Composition: Alumina, Silica, (Zirconia)

CCEWOOL® Superbloc® Module is a premium monolithic ceramic fiber lining module and an engineering product developed for customized Fabrication furnace lining systems. It is designed for industrial furnaces and kilns that require high structural stability, installation consistency, and reliable long-term performance at elevated temperatures.

The product is made from high-purity synthetic ceramic fiber and formed into a high-strength, self-supporting monolithic module through a proprietary process on a fully automated continuous production line. Compared with conventional assembled modules, CCEWOOL®

Superbloc® Module features a continuous, non-layered structure, making it more suitable for integrated and customized Fabrication lining systems across different furnace types, structural zones, and installation methods.

As a Fabrication product, CCEWOOL® Superbloc® Module focuses not only on material performance but also on structural fit and overall lining integrity. Combined with a dedicated anchoring system and installation tools, the module can achieve higher compression and more precise positioning during installation. Adjacent modules fit tightly together, helping reduce joints, thermal bridges, and local installation errors while improving hot-face flatness and long-term lining stability.

With its monolithic structure, high installation compatibility, and reliable long-term performance, CCEWOOL® Superbloc® Module is particularly suitable for integrated Fabrication furnace lining designs, providing a more complete, stable, and consistent high-temperature insulation lining solution.

Characteristics:

Excellent thermal shock resistance;
Low thermal conductivity and low heat storage;
Monolithic high-strength structure;
Multi-directional compression;
Tight-fitting, highly sealed lining structure;
High-temperature resistance with low shrinkage;
Simple design and high installation efficiency;
Stable and reliable anchoring system;
Excellent thermal stability;
Binder- and lubricant-free;
Excellent corrosion resistance.

Applications:

High-Temperature Industrial Furnace Linings
Furnace wall and roof linings for heating furnaces, heat-treatment furnaces, and soaking furnaces
High-temperature insulation and structurally stable linings for multi-zone industrial furnaces

Backup Insulation and High-Temperature Sealing
Backup insulation for furnace linings to help reduce shell temperature

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Continuous insulation and gas-tight areas inside high-temperature equipment

Power Generation & Energy

Insulation linings for waste heat boiler furnaces, chimneys, and high-temperature pipelines

High-temperature linings and insulation structures for boilers and combustion systems

Petrochemical & Refining

Ethylene cracking furnaces

Ammonia, hydrogen, and methanol reforming units

Delayed coking units and refinery process heaters

Flare stacks and high-temperature combustion system linings

Steel Industry

Furnace linings for reheating, annealing, and soaking furnaces

Furnace structures requiring high-temperature sealing and integrated thermal insulation

Ceramics & Refractory Industry

Furnace walls and roofs for tunnel kilns, intermittent kilns, and other industrial kilns

Kiln insulation linings requiring long-term high-temperature stability

Other High-Temperature Industrial Equipment

Linings for industrial boilers, heaters, and combustion chambers

High-temperature equipment requiring high structural integrity and long service life.

TDS

CCEWOOL® Superbloc® Module		
Description	Superbloc® Module 24	Superbloc® Mlodule 26
Classification Temperature (°C)	1316(2400°F)	1430(2600°F)
Color	White	White
Shot Content (%)	≤10	≤10

Density (kg/m°)		160	192	240	160	192	240
Permanent Linear Shrinkage (%)		1200°Cx24h≤3			1400°Cx24h≤3		
Thermal Conductivity (W/m-K)							
400°C		≤0.09			≤0.09		
600°C		≤0.14			≤0.14		
800°C		≤0.20			≤0.20		
1000°C		-			≤0.28		
Standard Size (mm)	Length	305					
	Width	305					
	Thickness	76-305					

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