

## **Ceramic and Glass - Glass Furnace**



For the hot surface and support lining solutions in glass melting furnaces, our EcoFiber low bio-durability fiber product combination offers consistent performance.

#### CCEWOOL® Low Biopersistent Fiber Blanket 2192



Temperature Grade 1200°C (2192°F)

CCEWOOL® Low Biopersistent Fiber

Blanket 2192 is made from alkaline earth
silicate and is a calcium-magnesium
insulating fiber. It is referred to as a soluble
fiber because it has some solubility in bodily
fluids. The introduction of MgO and CaO in
soluble fibers enhances their flexibility,

elasticity, and provides excellent thermal and mechanical performance. CCEWOOL® Low Biopersistent Fiber Blanket 2192 exhibits outstanding chemical stability and is unaffected by most chemicals except for hydrofluoric acid, phosphoric acid, and concentrated alkalis. If it becomes wet or saturated with water or



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steam, its thermal and physical properties are not compromised. It's certified by Fraunhofer laboratory.

Characteristic:
Low thermal conductivity;
Low thermal storage;
High tensile strength;
Thermal shock resistance;
Lightweight;
Excellent corrosion resistance.
Application:
Reusable insulation for steam and gas turbines;
High-temperature kiln and furnace insulation;
Furnace door linings and seals;
Furnace repairs;
Boiler and incinerator linings;
Seals and gaskets;
Automotive heat shields;
Appliance insulation;
Fire protection;
Duct, stack and flue linings;
Molten metal splash protection.

#### **TDS**

CCEWOOL® Lov	v Biopersistent Fiber Blanket 2192	
Classification Temperature (°ℂ)(°F)	1200℃(2192℉)	
Chemical Composition (%)		





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SiO2	65-68		
CaO	27-33		
MgO	2-7		
CaO+MgO	-		
Color	Light Bluish		
Shot Content (%)	≤12		
Density (kg/m³)(4lb/ft³)	96(6lb/ft³)	128(8lb/ft³)	
Tensile Strength (kPa)	55	75	
Permanent Linear Shrinkage	1200°C x 24h ≤2.8		
(%)			
Thermal Conductivity (W/m·K)	Thermal Conductivity (W/m·K)		
200℃	0.05	0.04	
400℃	0.09	0.08	
600℃	0.19	0.15	
800℃	0.3	0.2	
1000℃	0.48	0.28	
1200℃	0.69	0.49	

Thickness	Density kg/m3			Length	Width
mm	96	128	160	mm	mm
13	√	√	0	14640	
19	√	√	0	9760	
25	√	√	√	7320	610, 1220
38	V	<b>V</b>	V	4880	
50	V	√	-	3660	

Note:  $(\sqrt{})$  is standard size, Custom size are available

# **CCEWOOL® Low Biopersistent Fiber Board 2192**



Temperature grade 1200 °C (2192°F)

CCEWOOL® Low

Biopersistent Fiber Board 2192
is a soluble fiber board made
from a mixture of organic and

inorganic binders, with a very

low Fe2O3 content. Our CCEWOOL® Low Biopersistent Fiber boards can come into direct contact with fire and can be cut into various sizes according to customer requirements. It has an extremely low thermal conductivity, low heat storage capacity, and excellent resistance to thermal shock, making it suitable for applications with large temperature variations.

#### **Characteristics:**

Low thermal conductivity;

Low thermal storage;

High tensile strength;

Thermal shock resistance;

Lightweight;

Excellent corrosion resistance.

#### Application:

Hot face lining for furnace and oven;

Flue & chimney linings in furnaces & kilns;

Insulating backup for these products:

- Fire brick
- Insulating brick
- Refractory castable;



Insulation for electric appliance and heat treatment.

#### **TDS**

CCEWOOL® Low Biopersistent Fiber Board 2192			
Classification Temperature (°ℂ )	1200℃(2192℉)		
Color	Light Bluish		
Density (kg/m³)	300		
Modules of Rupture (MPa)	≥0.25		
Compressive Strength (MPa, 10% relative deformation)	0.15		
Loss of Ignition (%)	≤7		
Permanent Linear Shrinkage (%)	1100℃ x 24h ≤2.0		
Thermal Conductivity (W/m·K)			
200℃	0.05		
<b>400</b> ℃	0.08		
600℃	0.10		
800°C	0.12		
1000℃	0.14		

## **CCEWOOL® Low Biopersistent Fiber Paper**



Temperature Grade: 1200 °C (2192°F)

CCEWOOL® Low Biopersistent Fiber Paper is made from alkaline-earth silicate fibers primarily composed of SiO2, MgO, and CaO, blended with specific organic binders. This soluble fiber product is an innovative solution for high-temperature applications. With its unique calcium-magnesium chemical composition, it meets the requirements of applications up to



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 $1200\,^\circ\!\!\!\!\mathrm{C}$  (2192 $^\circ\!\!\!\mathrm{F}$  ) while also demonstrating significant solubility and environmental-friendly characteristics.

We offer soluble fiber paper in thicknesses ranging from 0.5 to 12mm. The product's safe operating temperature reaches up to  $1200^{\circ}$ C.

Characteristics:
Low bio-persistence fibre;
Excellent thermal insulating performance;
Thin, flexible high-temperature insulation;
Immune to thermal shock;
Low heat storage;
Easily die-cut to form complex shapes for high-temperature gasketing;
Excellent tensile strength;
Low thermal conductivity;
Non-wetting to molten aluminium.
Application:
High temperature gasket and sealing in various application;
Fire proof;
Fireproof doors;
Expansion joints ;

Gasket between Aluminum and zinc washer

- High temperature gaskets

Fireplace converter gasket;

- Metal lining;

Melting and holding furnaces refractory backing;

#### **TDS**



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1200 ℃(2192°F)  190-210  1000°C (1832°F)  >1300°C (2372°F)  >250  9	
1000℃ (1832℉) >1300℃ (2372℉) >250	
>1300°C (2372°F) >250	
>250	
9	
4.5	
1.5	
0.1	
0.16	
0.22	
65-68	
27-33	
<=3%	
60000*610*1;30000*610*2	
20000*610*3;15000*610*4	
12000*610*5;10000*610*6	
Min Width: 5cm	
Inner Plastic Bag+Outer Carton	

### **CCEWOOL® Low Biopersistent Fiber Module**



Temperature Grades:  $1200^{\circ}\mathbb{C}$  (2192°F),  $1300^{\circ}\mathbb{C}$ (2372°F)

CCEWOOL® Low Biopersistent Fiber Module is compressed from soluble fiber blankets. Low Biopersistent Fiber products are innovative solutions for high-temperature applications. Based on the unique characteristics of its calcium-magnesium chemical

composition, it can meet the requirements of use up to 1300°C (2372°F) while also exhibiting significant solubility and environmental properties. This module is designed to meet the insulation needs of industrial furnaces under specific thermal conditions. The bio-soluble fiber modules are produced with various anchoring systems for quick, easy, and efficient installation in most furnace linings. Module linings can improve furnace productivity and reduce maintenance costs.

#### Characteristics:

High temperature stability (up to 1300° C);

Low thermal conductivity;

Thermal shock resistance;

Low heat storage;

Lightweight;

Fast installation & selection of attachment systems.

# Application:

Heat treatment and forge furnaces;

Annealing furnaces;

Process heaters;

Ceramic tunnel kilns and Intermittent kilns;

Stress relieving furnaces;



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Door	and	cover	linings;
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Carbottom heating furnaces;

Stack, flue and duct linings;

Incinerators and boilers;

Ladle preheat stands.

#### **TDS**

CCEWOOL® Low Biopersistent Fiber Module		
Classification Temperature $(^{\circ}\mathbb{C})(^{\circ}\mathbb{F})$	1200℃(2192°F)	1300℃(2372℉)
Chemical Composition (%)		
SiO2	65-68	≥70
CaO	27-33	-
MgO	2-7	-
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℃ x 24h ≤2.8	1300°C x 24h ≤3.0
Thermal Conductivity (W/m·K)		
400°C	0.07	0.07
600℃	0.12	0.13
800℃	0.19	0.2
1000℃	0.26	0.3
1200℃	0.38	0.41