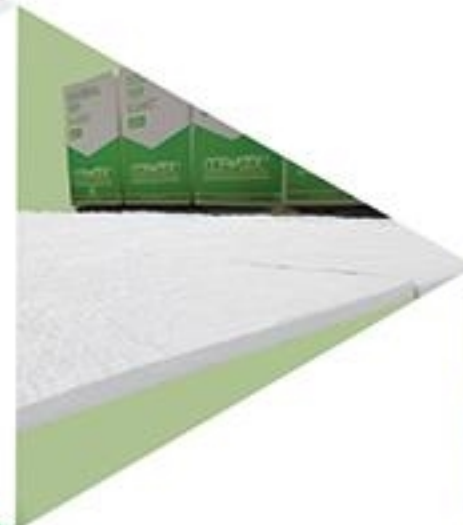




CCEWOOL®

*The Most Reputable Brand in
the Insulation Fiber Field for Over 20 Years*



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Double egret

Make Furnace Energy Efficiency Simpler

CATALOGUE

COMPANY PROFILE

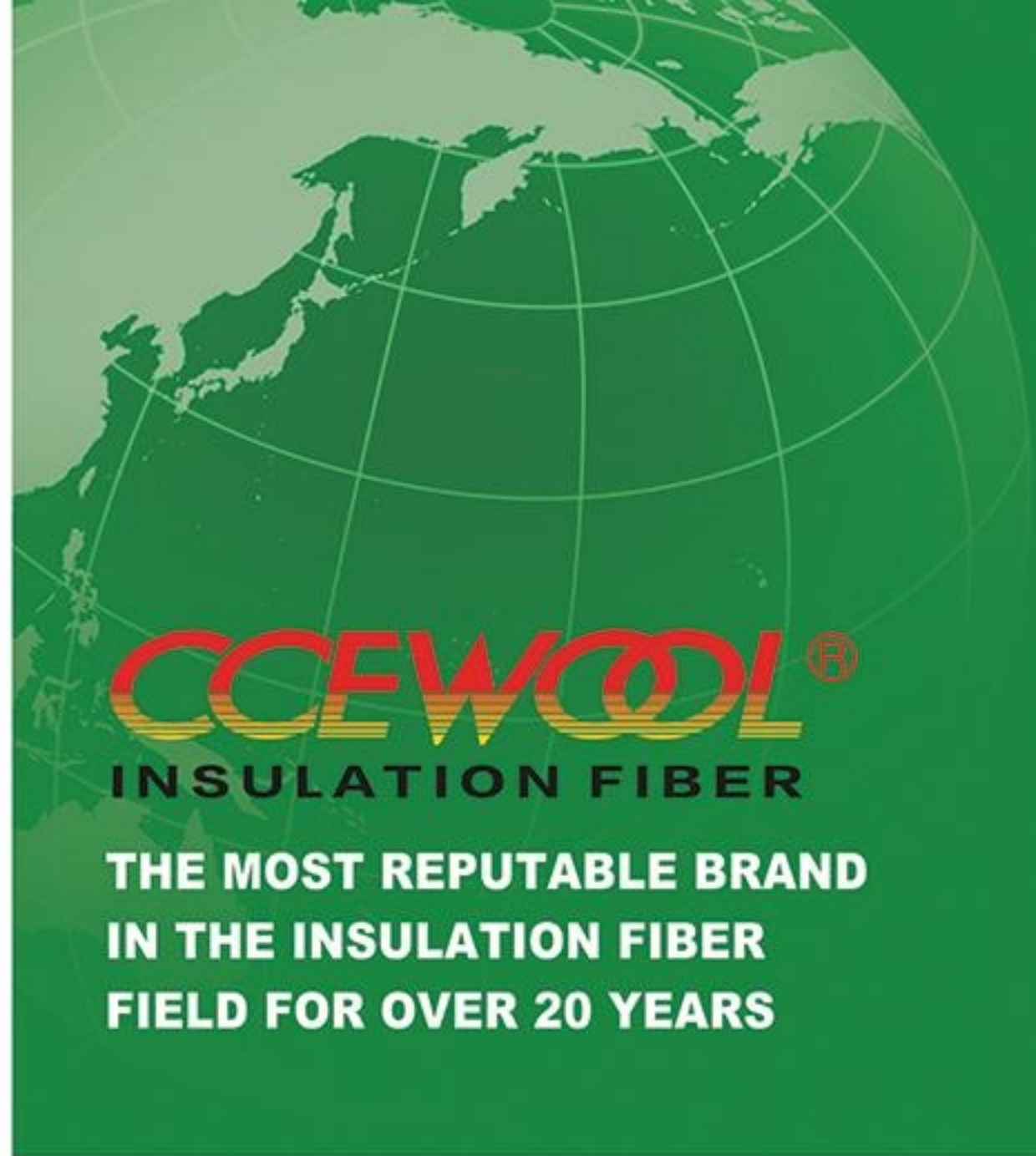
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Company Profile

CCEWOOL® has a 20-year global brand heritage, CCEWOOL® is Headquartered in Charlotte, USA. Our American base is a hub of innovation and collaboration, focusing on worldwide marketing strategies and pioneering research & development. Our Charlotte warehouse goes beyond mere storage; it serves as a dynamic hub for local sales and offers exceptional technical support. Centered in the USA and serving globally, this is not just a landmark presence but also a testament to the integration of advanced American technology. This strategic setup is a key step for CCEWOOL® to respond to global market changes, expand market share, and enhance brand influence, laying a solid foundation for further development in the global market.

The CCEWOOL® brand has established CCEWOOL Thermomax Inc. in the United States, CCEWOOL®'s international prowess is marked by 10 years of market insight in Canada, complemented by proficient warehouse sales operations. Our foundation for global outreach is rooted deeply in China, where we have grown steadily for 20 years. Since entering the U.S. market, our company has received extensive attention. By expanding product categories, increasing production lines, and collaborating with local large construction teams, it offers on-site technical support and services in the North American region, continuously enhancing customer satisfaction.

In terms of technological R&D, the CCEWOOL® brand, in partnership with the world's top refractory material industry experts, has introduced an innovative roofing insulation technology. This groundbreaking patented product not only significantly enhances energy-saving effects but also sets a new industry benchmark, elevating safety standards to unprecedented levels. As a milestone in CCEWOOL®'s innovation, this collaboration offers the construction industry more sustainable, safe, and reliable roofing insulation solutions.



CCEWOOL®
INSULATION FIBER
REFRACTORY CERAMIC FIBER
LOW BIOPERSISTENT FIBER
POLYCRYSTALLINE WOOL FIBER

Company Profile

Regarding staff configuration, CCEWOOL® employs a diverse talent pool, gathering professionals from around the world, respecting cultural differences to meet the needs of various markets. This cultural diversity makes us unique in the global market, striving for perfection in technological innovation, product quality, and customer service. Additionally, the company has brand agents in several countries worldwide, covering 40 countries globally, providing comprehensive services to customers.

International exhibitions are the highest threshold in industry standards. With twenty years of persistence, from Asia to Europe, and then to America, we have participated in over 30 global exhibitions, making us an unignorable force in global industry exhibitions. Each participation experience represents growth and enhancement for the brand, as well as a test of the company's strength, brand power, quality assurance, and R&D capabilities. The verification of over 30 exhibitions in 20 years has made us a trustworthy brand in the fiber field.

CCEWOOL® has strategically positioned its headquarters in the United States, a global move that not only strengthens its international status in the refractory materials industry but also lays a solid foundation for further development in the global market. We offer not just outstanding products and services but also focus on providing thermal energy-saving solutions. We sincerely invite you to experience the excellence of CCEWOOL and join us in witnessing a brilliant future.

The most reputable international brand

CCEWOOL® has a 20-year global brand heritage, CCEWOOL® is Headquartered in Charlotte, USA. Our American base is a hub of innovation and collaboration, focusing on worldwide marketing strategies and pioneering research & development. Our Charlotte warehouse goes beyond mere storage; it serves as a dynamic hub for local sales and offers exceptional technical support. Venturing beyond, CCEWOOL®'s international prowess is marked by 10 years of market insight in Canada, complemented by proficient warehouse sales operations. Our foundation for global outreach is rooted deeply in China, where we have grown steadily for 20 years. We have brand representatives across numerous countries, making our presence felt in over 40 nations.

Brand with International Exhibition Certification

International exhibitions are the highest threshold in industry standards. With twenty years of dedication, from Asia to Europe and then to the Americas, we have participated in over 30 global exhibitions.

Commitment to high quality

For over 20 years, CCEWOOL® has consistently prioritized quality, committing to the use of only the finest materials combined with cutting-edge manufacturing technology. Our compliance with international standards is demonstrated through our ISO 9001 certification and REACH certification processes.

20 years of history

CCEWOOL® has been deeply rooted in the refractory fiber field for over 20 years, with continuous innovation at the core of our operations. We have driven technological breakthroughs from traditional ceramic fibers to biosoluble fibers and polycrystalline fibers, especially in the innovation of 1600 polycrystalline fiber technology.

Competitive pricing

As a well-established brand in the refractory fiber field for over 20 years, CCEWOOL® leverages its strong customer base, supply capacity, and efficient management processes to offer the most competitive prices without compromising on quality.

A diverse range of high-temperature products

CCEWOOL®, driven by innovation, focuses on the continuous development of refractory fiber products, catering to high-temperature application needs across various industries and environments.

Thermal energy-saving solution technical support

CCEWOOL® specializes in providing comprehensive thermal energy-saving solutions, with multiple technical experts continually conducting research on industrial kilns, offering energy-saving design and technical consultation for metallurgy, steel, petrochemical, power, ceramic, glass industries, and new energy sectors.

Order progress video presentation

Service is at the core of the CCEWOOL® brand, providing real-time videos and images for every stage of your order, from production to inspection to container loading.

One-stop international procurement service

CCEWOOL®, with 20 years of international trade experience and a professional logistics documentation and customs clearance service team, offers a one-stop service to ensure your orders are delivered smoothly and worry-free.

Global agency system and overseas warehousing services

CCEWOOL® has brand agents in multiple countries worldwide to meet immediate purchasing needs. Additionally, CCEWOOL® has warehouses in Charlotte, USA, and Toronto, Canada, providing convenient delivery services for North American customers.



Ceramic Fiber



The classification temperature for ceramic fiber ranges from 1100°C (2012°F) to 1430°C (2600°F).

The raw materials for ceramic fiber are kaolin (also known as kyanite) or coal gangue (mainly composed of alumina, silica, etc.), or direct alumina powder and silica synthetic materials. The raw materials for ceramic fibers of different temperature grades vary, with the main chemical components being alumina and silica, also known as aluminum silicate fiber. Aluminum silicate fiber is an amorphous fiber prepared by a high-temperature melting process.

Characteristics:

Ceramic fiber is lightweight, has high strength, is easy to install, has low thermal conductivity, and strong heat storage capacity, which can effectively save energy. It also has good resistance to thermal shock and can be used in harsh environments.

Ceramic fiber has controllable density, high tensile strength, and elasticity.

It has excellent chemical stability and outstanding sound insulation and thermal insulation properties.

Ceramic fiber is widely used in various industries such as machinery, metallurgy, chemical, petroleum, ceramics, glass, electronics, and others.



CCEWOOL® Ceramic Fiber Blanket

CCEWOOL® ceramic fiber blanket, also known for aluminum silicate blanket, is a new type of fire-resistant insulation materials in white and tidy size, with integrated fire resistance, heat separation and thermal insulation functions, containing no any binding agent and maintaining good tensile strength, toughness, and the fibrous structure when used in a neutral, oxidized atmosphere. Ceramic Fiber Blanket can restore to original thermal and physical properties after drying, without any impact by oil corrosion. Temperature degree varies from 1100°C(2012°F) to 1430°C(2600°F).

CCEWOOL® Ceramic Fiber Blanket DB



Temperature Grade 1100°C (2012°F)

CCEWOOL® Ceramic Fiber Blanket DB is a new type backing refractory insulation material in white appearance, uniform dimensions, and combines fire resistance, insulation, and thermal retention functions in one, without any binders. Refractory Ceramic fiber blankets are unaffected by oil erosion and can quickly regain their thermal performance and physical characteristics after drying. It is primarily used for furnace lining insulation and is an economically effective insulation filling material. The installation speed of CCEWOOL® Ceramic Fiber Blanket DB can be four times faster than regular block insulation materials and comes at a competitive price compared to mineral wool.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Blanket DB	
Classification temperature	1100°C (2012°F)
Operation Temp(°C)(°F)	982 (1800°F)
Density (kg/m ³)	64/ 96/ 128/160(4,6,8,10lb/ft ³)
Shot Content(%)	≤15
Color	White
Chemical Composition of refractory ceramic blanket (%)	
Al ₂ O ₃	≥43
SiO ₂	≥52
ZrO ₂	-
Permanent Change on Heating (%), EN1094-1	
After 24 hours	
®950°C (1742°F)	≤-3
®1000°C (1832°F)	-
®1100°C (2012°F)	-
®1200°C (2192°F)	-
®1300°C (2372°F)	-
®1400°C (2552°F)	-
Tensile Strength(Kg/m ³), EN1094-1 KPa	
64kg/m ³ (4lb/ft ³)	28
96kg/m ³ (6lb/ft ³)	45
128kg/m ³ (8lb/ft ³)	70
160kg/m ³ (10lb/ft ³)	-
Heat Conductive Co-efficient W/(m·k)(128kg/m ³)	
200°C (392°F)	0.07
400°C (752°F)	0.12
600°C (1112 °F)	0.2
800°C (1472°F)	0.35
1000°C (1832°F)	-

CHARACTERISTICS

- Excellent chemical stability;
- Excellent thermal stability;
- Excellent tensile strength;
- Low thermal conductivity;
- Low heat capacity;
- Excellent insulation properties;
- Good sound absorption.

APPLICATIONS

- Back-up for lining systems;
- Filler for insulating pads;
- Expansion joint material.

Thickness mm	Density kg/m ³				Length mm	Width mm
	64	96	128	160		
6	-	-	○	○	7200	610/1220
13	-	√	√	○	14640	
19	-	√	√	○	9760	
25	○	√	√	√	7320	
38	○	√	√	√	4880	
50	○	√	√	-	3660	

Note: (√) is standard size, Custom size are available

CCEWOOL® Ceramic Fiber Blanket S



Temperature Grade 1260°C (2300°F)
 CCEWOOL® Ceramic Fiber Blanket S is a high-strength needled blanket made from classic series refractory ceramic fiber spun fiber. This product contains no organic binders. Manufactured through a unique internal needle punching process with tensile strength exceeding 75KPa, making it safe, stable, energy-efficient, and highly effective. CCEWOOL® Ceramic Fiber Blanket S insulation material offers a variety of thickness, width and density to meet energy-saving requirements under different conditions.

CHARACTERISTICS

- Excellent handling strength;
- Excellent hot strength;
- Low thermal conductivity;
- Low heat storage;
- Light weight;
- Resiliency;
- Thermal shock resistance;
- High heat reflectance;
- Excellent corrosion resistance;
- Excellent thermal stability;
- Excellent sound absorption;
- Excellent fire protection.

APPLICATIONS

- Industrial furnace wall lining;
- Back lining material;
- Furnace masonry expansion joints, door, roof heat insulation seal;
- High temperature pipe insulation material;
- Module / folded module processing material;
- Fireproof coating;
- Steel industry;
- Heat treating and annealing furnaces;
- Furnace door linings and seals;
- Soaking pit covers and seals;
- Furnace hot face repairs;
- Reheat furnaces;
- Ladle covers;
- Power generation;
- Boiler Insulation;
- Boiler Doors;
- Reusable Turbine Covers;
- Pipe Covering;
- Insulation of Commercial Dryers and Covers;
- Veneer Over Existing Refractory;
- Stress Relieving Furnaces;
- Glass Furnace Crown Insulation;
- Fire Protection.

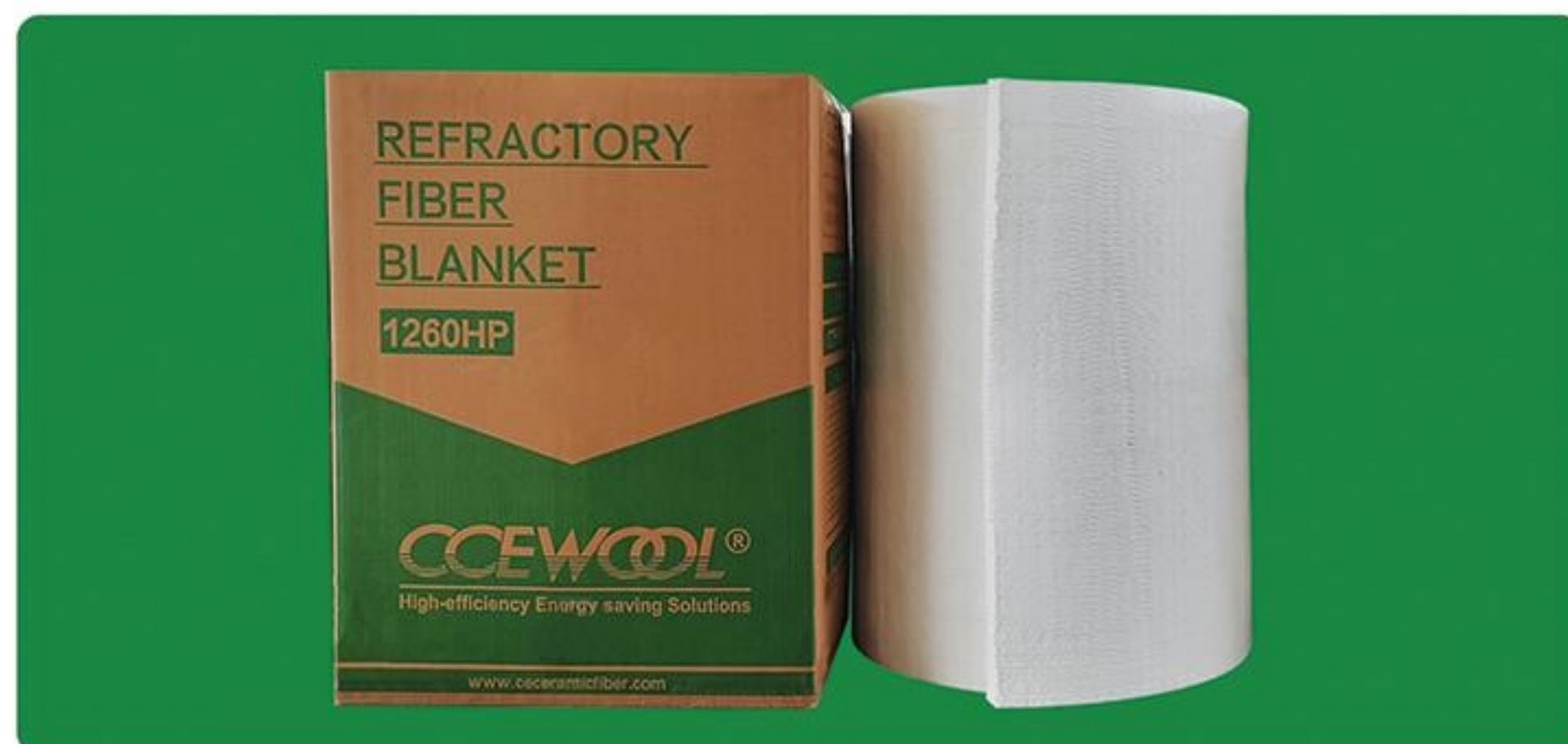
TECHNICAL DATA

CCEWOOL® Ceramic Fiber Blanket S

Classification temperature	1260 (2300°F)					
Operation Temp(°C)(°F)	1050 (1922°F)					
Density (kg/m3)	64/ 96/ 128/160(4,6,8,10lb/ft3)					
Shot Content(%)	≤15					
Color	White					
Chemical Composition of refractory ceramic blanket (%)						
Al2O3	≥44					
SiO2	≥52					
ZrO2	-					
Permanent Change on Heating (%), EN1094-1						
After 24 hours						
®950°C (1742°F)	-					
®1000°C (1832°F)	1.5					
®1100°C (2012°F)	2.5					
®1200°C (2192°F)	3					
®1300°C (2372°F)	-					
®1400°C (2552°F)	-					
Tensile Strength(Kg/m3), EN1094-1 KPa						
64kg/m3(4lb/ft3)	35					
96kg/m3(6lb/ft3)	55					
128kg/m3(8lb/ft3)	75					
160kg/m3(10lb/ft3)	110					
Heat Conductive Co-efficient W/(m·k)(128kg/m3)						
200°C (392°F)	0.07					
400°C (752°F)	0.12					
600°C (1112 °F)	0.2					
800°C (1472°F)	0.3					
1000°C (1832°F)	0.45					
Thickness	Density, kg/m3			Length	Width	
mm	64	96	128	160	mm	
6	-	-	○	○	7200	610, 1220
13	-	√	√	○	14640	
19	-	√	√	○	9760	
25	○	√	√	√	7320	
38	○	√	√	√	4880	
50	○	√	√	-	3660	

Note: (√) is standard size, Custom size are available

CCEWOOL® Ceramic Fiber Blanket HPS



Temperature Grade 1260°C (2300°F)

CCEWOOL® Ceramic Fiber Blanket HPS, purified from raw materials with fewer impurities, is made from high-purity refractory ceramic fiber spun fiber. Compared to RCF Blanket S, this product is whiter and has a lower thermal conductivity. It contains no organic binders. Manufactured through a unique internal needle punching process, with tensile strength exceeding 85KPa, providing higher performance and longer lifespan in applications involving heat flow or chemical corrosion.

CCEWOOL® Ceramic Fiber Blanket HPS insulation material offers a variety of thickness, width, and density.

CHARACTERISTICS

- Excellent handling strength;
- Excellent hot strength;
- Low thermal conductivity;
- Low heat storage;
- Light weight;
- Resiliency;
- Thermal shock resistance;
- High heat reflectance;
- Excellent corrosion resistance;
- Excellent thermal stability.

APPLICATIONS

- Furnace, kiln, reformer and boiler linings;
- Investment casting mold wrappings;
- Removable insulating blankets for stress relieving welds;
- Reusable insulation for steam and gas turbines;
- Flexible high-temperature pipe insulation;
- Pressure and cryogenic vessel fire protection;
- High-temperature kiln and furnace insulation;
- Furnace door linings and seals;
- Soaking pit seals;
- Furnace repairs;
- Thermal reactor insulation;
- Expansion joint seals;
- Primary reformer header insulation;
- High-temperature gasketing;
- Glass furnace crown insulation;
- Incineration equipment and stack linings;
- Annealing cover seals;
- High-temperature filtration;
- Nuclear insulation applications;
- Atmosphere furnace lining;
- Field steam generator lining;
- Chemical process heaters.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Blanket HPS

Classification temperature	1260 (2300°F)					
Operation Temp(°C)(°F)	1100 (2012°F)					
Density (kg/m3)	64/ 96/ 128/160(4,6,8,10lb/ft3)					
Shot Content(%)	≤15					
Color	White					
Chemical Composition of refractory ceramic blanket (%)						
	Al ₂ O ₃	≥44				
	SiO ₂	≥55				
	ZrO ₂	-				
Permanent Change on Heating (%), EN1094-1						
After 24 hours						
	®950°C (1742°F)	-				
	®1000°C (1832°F)	1.5				
	®1100°C (2012°F)	2.2				
	®1200°C (2192°F)	3				
	®1300°C (2372°F)	-				
	®1400°C (2552°F)	-				
Tensile Strength(Kg/m3), EN1094-1 KPa						
	64kg/m3(4lb/ft3)	45				
	96kg/m3(6lb/ft3)	65				
	128kg/m3(8lb/ft3)	85				
	160kg/m3(10lb/ft3)	125				
Heat Conductive Co-efficient W/(m·k)(128kg/m3)						
	200°C (392°F)	0.07				
	400°C (752°F)	0.12				
	600°C (1112 °F)	0.2				
	800°C (1472°F)	0.3				
	1000°C (1832°F)	0.4				
Thickness	Density, kg/m3				Length	Width
mm	64	96	128	160	mm	mm
6	-	-	○	○	7200	610, 1220
13	-	√	√	○	14640	
19	-	√	√	○	9760	
25	○	√	√	√	7320	
38	○	√	√	√	4880	
50	○	√	√	-	3660	

Note: (√) is standard size, Custom size are available

CCEWOOL® Ceramic Fiber Blanket LZ



Temperature Grade 1400°C (2550°F)
 CCEWOOL® Ceramic Fiber Blanket LZ is primarily made from refractory ceramic fiber spun fiber as raw material with properly amount of Zr2O3 ,double-sided internal needle punching process. It is a lightweight, flexible refractory fiber insulation material resistant to high temperatures up to 1400°C (2550°F). CCEWOOL® Ceramic Fiber Blanket LZ exhibit excellent toughness, elasticity, and workability, making them versatile high-temperature insulation products.



CHARACTERISTICS

- High compressive strength and long service life;
- Low heat capacity and low thermal conductivity;
- Non-brittle material with good toughness;
- Small dimensional tolerance and good flatness;
- Easy to cut and install, convenient for construction;
- Excellent resistance to wind erosion;
- Continuous production with uniform fiber distribution and stable performance;
- Excellent sound absorption and noise reduction performance.

APPLICATIONS

- Industrial kiln linings and backing materials with a long-term operating temperature between 1150°C to 1250°C.
- Insulation materials for industrial kiln expansion joints, furnace doors, and top covers.
- Insulation materials for high-temperature pipelines.
- High-temperature insulation gaskets with a long-term operating temperature below 1250°C.
- Raw materials for zirconia-alumina refractory ceramic fiber modules/folded blocks.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Blanket LZ

Classification temperature	1400 (2550°F)					
Operation Temp(°C)(°F)	1200°C (2192°F)					
Density (kg/m3)	64/ 96/ 128/160(4,6,8,10lb/ft3)					
Shot Content(%)	≤15					
Color	White					
Chemical Composition of refractory ceramic blanket (%)						
Al2O3	≥44					
SiO2	≥50					
ZrO2	≥5					
Permanent Change on Heating (%), EN1094-1						
After 24 hours						
®950°C (1742°F)	-					
®1000°C (1832°F)	-					
®1100°C (2012°F)	1.5					
®1200°C (2192°F)	2					
®1300°C (2372°F)	3					
®1400°C (2552°F)	-					
Tensile Strength(Kg/m3), EN1094-1 KPa						
64kg/m3(4lb/ft3)	45					
96kg/m3(6lb/ft3)	65					
128kg/m3(8lb/ft3)	85					
160kg/m3(10lb/ft3)	125					
Heat Conductive Co-efficient W/(m·k)(128kg/m3)						
200°C (392°F)	0.07					
400°C (752°F)	0.12					
600°C (1112 °F)	0.2					
800°C (1472°F)	0.3					
1000°C (1832°F)	0.43					
Thickness	Density kg·m ³				Length	Width
mm	64	96	128	160	mm	mm
6	-	-	○	○	7200	610, 1220
13	-	√	√	○	14640	
19	-	√	√	○	9760	
25	○	√	√	√	7320	
38	○	√	√	√	4880	
50	○	√	√	-	3660	

Note: (√) is standard size, Custom size are available

CCEWOOL® Ceramic Fiber Blanket 2600



Temperature Grade 1430°C (2600°F)

CCEWOOL® Ceramic Fiber Blanket 2600 is made from high-purity alumina, zirconia, and silica as raw materials through a unique fiber manufacturing process. It possesses excellent insulation properties and exhibits extremely low shrinkage characteristics at high temperatures. Its long-term operating temperature reaches around 1350°C (2462°F). This product is white in color, flexible in texture, has good flatness, and is highly temperature-resistant, delivering excellent fire resistance and insulation. It is an ideal material for refractory, insulation, and thermal insulation applications in high-temperature environments.

CHARACTERISTICS

- Excellent handling strength;
- Excellent hot strength;
- Low thermal conductivity;
- Low heat storage;
- Light weight;
- Resiliency;
- Thermal shock resistance;
- High heat reflectance;
- Excellent corrosion resistance;
- Excellent thermal stability.

APPLICATIONS

- Furnace linings;
- Boiler insulation;
- Temperature control in heat treatment processes;
- Insulation for the roofs of glass furnaces;
- Furnace door seals;
- Lining for flue ducts;
- Insulation for pipelines;
- Insulation components in transportation equipment;
- Fire protection;
- Thermal sealing gaskets for household appliances;
- Thermal stress relief insulation at outdoor welding joints;
- High-temperature insulation;
- Fire-resistant insulation for fire shutter doors.

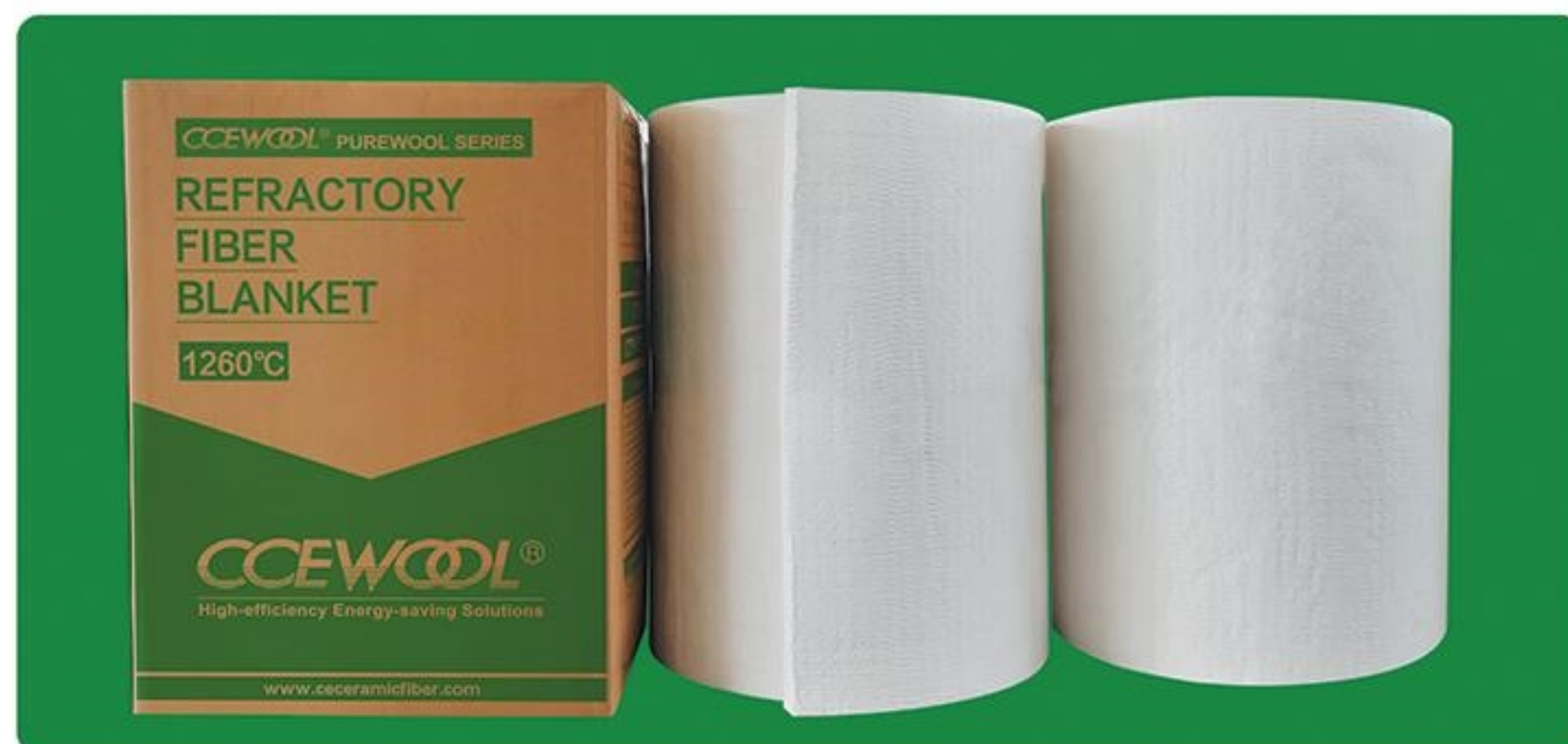
TECHNICAL DATA

CCEWOOL® Ceramic Fiber Blanket 2600

Classification temperature	1430HZ (2600°F)					
Operation Temp(°C)(°F)	1350°C (2462°F)					
Density (kg/m3)	96/ 128/ 160 (6,8,10lb/ft3)					
Shot Content(%)	≤12					
Color	White					
Chemical Composition of refractory ceramic blanket (%)						
Al2O3	≥35					
SiO2	≥49					
ZrO2	≥15					
Permanent Change on Heating (%), EN1094-1						
After 24 hours						
®950°C (1742°F)	-					
®1000°C (1832°F)	-					
®1100°C (2012°F)	-					
®1200°C (2192°F)	1					
®1300°C (2372°F)	2					
®1400°C (2552°F)	3					
Tensile Strength(Kg/m3), EN1094-1 KPa						
64kg/m3(4lb/ft3)	-					
96kg/m3(6lb/ft3)	65					
128kg/m3(8lb/ft3)	85					
160kg/m3(10lb/ft3)	125					
Heat Conductive Co-efficient W/(m·k)(128kg/m3)						
200°C (392°F)	0.06					
400°C (752°F)	0.11					
600°C (1112 °F)	0.16					
800°C (1472°F)	0.23					
1000°C (1832°F)	0.35					
Thickness	Density kg m3				Length	Width
mm	64	96	128	160	mm	mm
6	-	-	○	○	7200	610, 1220
13	-	√	√	○	14640	
19	-	√	√	○	9760	
25	○	√	√	√	7320	
38	○	√	√	√	4880	
50	○	√	√	-	3660	

Note: (√) is standard size, Custom size are available

CCEWOOL® PUREWOOL Ceramic Fiber Blanket



Temperature Grades 1260°C (2300°F) and 1430°C (2600°F)
 CCEWOOL® PUREWOOL Ceramic Fiber Blanket is a premium product among refractory ceramic fibers. It is made from upgraded materials using high-purity alumina, zirconia, and silica as raw materials. Due to its extremely low impurity content, this blanket is whiter in color. Ultra-long spun fibers are interlocked through a double-sided internal needle punching process, providing a tensile strength of up to 90KPa. With improvements made from the raw materials, CCEWOOL® PUREWOOL Ceramic Fiber Blanket offers a longer lifespan and superior thermal insulation performance. This insulation material is available in various thicknesses, widths, and densities to meet energy-saving requirements under different conditions.

CHARACTERISTICS

- Excellent handling strength;
- Excellent hot strength;
- Low thermal conductivity;
- Low heat storage;
- Light weight;
- Resiliency;
- Thermal shock resistance;
- High heat reflectance;
- Excellent corrosion resistance;
- Excellent thermal stability.

APPLICATIONS

- Industrial furnace wall lining;
- Back lining material;
- Furnace masonry expansion joints, door, roof heat insulation seal;
- High temperature pipe insulation material;
- Module / folded module processing material;
- Fireproof coating;
- Steel industry;
- Heat treating and annealing furnaces;
- Furnace door linings and seals;
- Soaking pit covers and seals;
- Furnace hot face repairs;
- Reheat furnaces;
- Ladle covers;
- Power generation;
- Boiler Insulation;
- Boiler Doors;
- Reusable Turbine Covers;
- Pipe Covering;
- Insulation of Commercial Dryers and Covers;
- Veneer Over Existing Refractory;
- Stress Relieving Furnaces;
- Glass Furnace Crown Insulation;
- Fire Protection.

TECHNICAL DATA

CCEWOOL® PUREWOOL Ceramic Fiber Blanket						
Classification temperature	1260(2300°F)		1430(2600°F)			
Operation Temp(°C)(°F)	1100°C(2012°F)		1350°C(2462°F)			
Density (kg/m3)	96/ 128/ 160 (6,8,10lb/ft3)					
Shot Content(%)	≤12					
Color	White					
Chemical Composition of refractory ceramic blanket (%)						
Al2O3	≥44			≥35		
SiO2	≥55			≥49		
ZrO2	-			≥15		
Permanent Change on Heating (%), EN1094-1						
After 24 hours						
®950°C (1742°F)	-			-		
®1000°C (1832°F)	1.5			-		
®1100°C (2012°F)	2			-		
®1200°C (2192°F)	2.7			1		
®1300°C (2372°F)	5.5			2		
®1400°C (2552°F)				3		
Tensile Strength(Kg/m3), EN1094-1 KPa						
64kg/m3(4lb/ft3)	-			-		
96kg/m3(6lb/ft3)	60			60		
128kg/m3(8lb/ft3)	90			90		
160kg/m3(10lb/ft3)	130			130		
Heat Conductive Co-efficient W/(m·k)(128kg/m3)						
200°C (392°F)	0.07			0.06		
400°C (752°F)	0.12			0.1		
600°C (1112 °F)	0.2			0.15		
800°C (1472°F)	0.3			0.2		
1000°C (1832°F)	0.35			0.3		
Thickness	Density, kg/m3				Length	Width
mm	64	96	128	160	mm	mm
6	-	-	○	○	7200	610, 1220
13	-	√	√	○	14640	
19	-	√	√	○	9760	
25	○	√	√	√	7320	
38	○	√	√	√	4880	
50	○	√	√	-	3660	

Note: (√) is standard size, Custom size are available

CCEWOOL® Water Repellent Ceramic Fiber Blanket



Temperature Grades 1100°C (2012°F), 1260°C (2300°F)

CCEWOOL® Water Repellent Ceramic Fiber Blanket is a refractory ceramic fiber hydrophobic (water-repellent) blanket made from high-strength needled blanket produced from refractory ceramic fiber spun fiber. It features a solvent-based high-temperature nano-hydrophobic material as a surface treatment agent and is manufactured using a unique double-sided internal needle punching process. This product achieves overall water repellency for refractory ceramic fiber blankets and exhibits excellent hydrophobic properties, greatly enhancing the insulation performance of the fibers. It solves the issues of reduced thermal conductivity and insulation body corrosion caused by moisture absorption in conventional fiber blankets.



CHARACTERISTICS

- Excellent hydrophobicity;
- Excellent chemical stability;
- Excellent thermal stability;
- Excellent tensile strength;
- Low thermal conductivity;
- Low heat capacity;
- Excellent insulation properties;
- Good sound absorption

APPLICATIONS

- Sheathed steel beams and ventilation ducts;
- Installation of firewalls, doors, and ceilings;
- Insulation of cables and wires inside wall pipes;
- Fire protection for ship decks and bulkheads;
- Soundproofing enclosures and measurement rooms;
- Sound insulation in industrial and power plants;
- Sound barriers;
- Building soundproofing;
- Soundproofing for ships and automobiles.

TECHNICAL DATA

CCEWOOL® Water Repellent Ceramic Fiber Blanket

Classification temperature	1100°C (2012°F)	1260 (2300°F)			
Operation Temp(°C)(°F)	982 (1800°F)	1050 (1922°F)			
Density (kg/m3)	64/ 96/ 128(4,6,8lb/ft3)				
Water content(%)	≤1				
Hydrophobicity(%)	≥99				
Shot Content(%)	≤15	≤15			
Color	White				
Chemical Composition of refractory ceramic blanket (%)					
Al ₂ O ₃	≥43	≥44			
SiO ₂	≥52	≥52			
ZrO ₂	-	-			
Permanent Change on Heating (%), EN1094-1					
After 24 hours					
®950°C (1742°F)	≤-3	-			
®1000°C (1832°F)	-	1.5			
®1100°C (2012°F)	-	2.5			
®1200°C (2192°F)	-	3			
®1300°C (2372°F)	-	-			
Tensile Strength(Kg/m3), EN1094-1 KPa					
64kg/m3(4lb/ft3)	28KPa min.	35KPa min.			
96kg/m3(6lb/ft3)	45KPa min.	55KPa min.			
128kg/m3(8lb/ft3)	70KPa min.	75KPa min.			
Heat Conductive Co-efficient W/(m·k)(128kg/m3)					
200°C (392°F)	0.07	0.07			
400°C (752°F)	0.12	0.12			
600°C (1112 °F)	0.2	0.2			
800°C (1472°F)	0.35	0.3			
1000°C (1832°F)	-	0.45			
Thickness	Density kg/m3			Length	Width
mm	64	96	128	160	mm
25	○	√	√	√	7320
38	○	√	√	√	4880
50	○	√	√	-	3660

Note: (√) is standard size, Custom size are available

CCEWOOL® Ceramic Fiber Wrap



CCEWOOL® Ceramic Fiber Wrap is a refractory ceramic fiber aluminum foil blanket primarily used in areas that require fire resistance and insulation in construction, such as fire protection ducts, exhaust pipes, and chimneys. It utilizes European standard aluminum foil with thin foil thickness and one-time bonding without the use of adhesives, making it less prone to delamination and ensuring good adhesion between CCEWOOL refractory ceramic fiber blankets and aluminum foil. This product features easy installation and durability.

CCEWOOL® Ceramic Fiber Wrap refractory ceramic fiber aluminum foil blankets can be customized to different sizes and bulk densities based on the specific requirements of the customer's application location.

CHARACTERISTICS

- Excellent chemical stability;
- Excellent thermal stability;
- Excellent tensile strength;
- Low thermal conductivity;
- Low heat capacity;
- Excellent insulation properties;
- Good sound insulation.

APPLICATIONS

- Cable bracket, duct;
- Railroad oil tanker;
- Vessel;
- Vessel wall and board;
- Expansion joint;
- Structural steel panel;
- Seals for fireproof door;
- Electric circuit protection;
- Chimney liner insulation;
- General high temperature insulation, exhaust ducts of commercial and industrial application;
- High temperature ventilation ducts, kitchen exhaust hoods and fume pipes, supply and exhaust air vents;
- Fire protection, Ships engine rooms, exhaust chimneys;
- Air ventilation duct enclosure, through penetration fire stop systems;
- Electrical ducts, protection of electrical wiring.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Wrap						
Classification temperature	1260 (2300°F)	1260 (2300°F)	1400 (2550°F)	1430HZ (2600°F)		
Operation Temp(°C)(°F)	1050 (1922°F)	1100 (2012°F)	1200°C (2192°F)	1350°C (2462°F)		
Density (kg/m3)	64/ 96/ 128/160(4,6,8,10lb/ft3)					
Aluminum foil thickness	0.12					
Chemical Composition of refractory ceramic blanket (%)						
Al2O3	≥44	≥44	≥44	≥35		
SiO2	≥52	≥55	≥50	≥49		
ZrO2	-	-	≥5	≥15		
Permanent Change on Heating (%), EN1094-1						
After 24 hours						
Ⓢ1000°C (1832°F)	1.5	1.5	-	-		
Ⓢ1100°C (2012°F)	2.5	2.2	1.5	-		
Ⓢ1200°C (2192°F)	3	3	2	1		
Ⓢ1300°C (2372°F)	-	-	3	2		
Ⓢ1400°C (2552°F)	-	-	-	3		
Tensile Strength(Kg/m3), EN1094-1 KPa						
64kg/m(4lb/ft3)	35	45	45	-		
96kg/m(6lb/ft3)	55	65	65	65		
128kg/m3(8lb/ft3)	75	85	85	85		
160kg/m3(10lb/ft3)	110	125	125	125		
Heat Conductive Co-efficient W/(m·k)(128kg/m3)						
200°C (392°F)	0.07	0.07	0.07	0.06		
400°C (752°F)	0.12	0.12	0.12	0.11		
600°C (1112 °F)	0.2	0.2	0.2	0.16		
800°C (1472°F)	0.3	0.3	0.3	0.23		
1000°C (1832°F)	0.45	0.4	0.43	0.35		
Thickness	Density kg m3				Length	Width
mm	64	96	128	160	mm	mm
6	-	-	○	○	7200	610, 1220
13	-	√	√	○	14640	
19	-	√	√	○	9760	
25	○	√	√	√	7320	
38	○	√	√	√	4880	
50	○	√	√	-	3660	

Note: (√) is standard size, Custom size are available



CCEWOOL® Ceramic Fiber Board

CCEWOOL® ceramic fiber board, also known for aluminum silicate board, is made by adding a small amount of binders into high purity alumina silicate. CCEWOOL® Ceramic Fiber Board is made through automation control and continuous production process, with a host of features such as precise size, good flatness, high strength, lightweight, excellent thermal shock resistance and anti-stripping, which can be widely used for insulation in the linings around and at the bottom of kilns, as well as ceramic kilns fire position, craft glass mold and other positions. Temperature varies from 1100°C (2012°F) to 1430°C (2600°F).

CCEWOOL® Ceramic Fiber Board DB



Temperature Grade 1100°C (2012°F)

CCEWOOL® Ceramic Fiber Board DB is a refractory ceramic fiber backboard made primarily from alumina-silica fiber, natural refractory materials, and a small amount of organic binders. It is processed using a fully automated continuous production line. The product has a high fiber content and features characteristics such as high-temperature resistance, lightweight, and thermal shock resistance. It can be used in various applications, including industrial kiln and furnace lining, wall lining, lining materials, insulation for electric heating furnaces, ceramic shuttle kilns, tunnel kilns, and roller kilns, providing strong support for energy saving, consumption reduction, high quality, and high yield in kilns.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Board DB	
Classification temperature	1100°C(2012°F)
Operation Temp(°C)(°F)	950°C (1742°F)
Permanent Linear Change on Heating (%)	
®950C,24hrs	4
®1200C,24hrs	-
®1300C,24hrs	-
®1350C,24hrs	-
Thermal Conductivity (w/m.k)	
600°C	0.13
800°C	0.2
1000°C	-
Rupture Strength (Mpa)	
Thickness≤25mm	0.5
Thickness>25mm	0.2
Chemical Composition (%)	
Al2O3	≥43
SiO2	≥52
ZrO2	-
Package	Carton box or pallet
Specification	
Thickness (mm)	20.25.50.80.100
Size (mm)	1200*1000 or customized size

CHARACTERISTICS

- Low heat capacity, low thermal conductivity;
- High compressive strength;
- Non-brittle material, good elasticity;
- Accurate sizes and good flatness;
- Easily molded or cut, easy to install;
- Continuous production, even fiber distribution and stable performance;
- Excellent thermal stability and thermal shock resistance.

APPLICATIONS

- Backing insulation for kilns in the cement and building materials industry;
- Backing insulation for various kilns in the ceramics industry;
- Backing, wall lining, and insulation for kilns in the petrochemical and metallurgical industries;
- Wall lining and backing insulation for glass kilns;
- Backing insulation for heat treatment kilns;
- Refractory brick backing for aluminum reduction cells in aluminum plants;
- Wall lining and backing materials for high-temperature reactors and heating equipment.

CCEWOOL® Ceramic Fiber Board LD



Temperature Grade 1260°C(2300°F)

CCEWOOL® Ceramic Fiber Board LD is made from high-purity alumina-silicate fibers with a certain proportion of binders added. It is manufactured through processes such as pressing, curing, shaping, longitudinal and transverse cutting, and vacuum molding. It features a uniform structure, excellent thermal and acoustic insulation properties, low thermal conductivity, low heat capacity, high compressive strength, precise dimensions, good flatness, ease of mechanical processing, and installation. These characteristics make it ideal for use as a core material or sandwich material in the manufacturing of components where aesthetics, quality, uniformity, and performance are crucial.

CCEWOOL® Ceramic Fiber Board LD is produced through a fully automatic vacuum molding process, operating continuously for 24 hours, resulting in improved compressive strength. The surface of CCEWOOL® Ceramic Fiber Board LD is flat, and it is available in various standard thicknesses for selection.

CHARACTERISTICS

- Low heat capacity, low thermal conductivity;
- Non-brittle material, good elasticity;
- High compressive strength;
- Excellent wind-erosion resistance, long service life;
- Excellent thermal stability and thermal shock resistance;
- Continuous production, even fiber distribution and stable performance;
- Good sound insulation;
- Good anti-stripping properties;
- Easily molded or cut, easy to install;
- Accurate sizes and good flatness.

APPLICATIONS

- Refractory lining; Insulating backup to dense refractory materials;
- Insulating backup to brick & castable; Furnace hot face lining in ceramic kiln, box furnace & petrochemical furnace;
- Use in industrial heat processing equipment;
- Rigid high-temperature gaskets & seals;
- High-temperature baffles & muffles;
- Flue & chimney linings in furnaces & kilns;
- Molten metal trough covers; Hot gas duct linings;
- Expansion joints; Industrial heat shields & thermal barriers;
- Industrial combustion chamber construction;
- Domestic appliance & light-duty industrial combustion chamber construction.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Board LD

Classification Temperature (°C)(°F)	1260°C(2300°F)
Operation Temp(°C)(°F)	1050°C(1922°F)
Color	white
Permanent Linear Change on Heating (%)	
®950C,24hrs	-
®1200C,24hrs	3
®1300C,24hrs	-
®1350C,24hrs	-
Thermal Conductivity (w/m.k)	
600°C	-
800°C	0.13
1000°C	0.19
Rupture Strength (Mpa)	
Thickness≤25mm	0.5
Thickness > 25mm	0.2
Chemical Composition (%)	
Al ₂ O ₃	≥44
SiO ₂	≥52
ZrO ₂	-
Package	Carton box or pallet
Specification	
Thickness (mm)	20.25.50.80.100
Size (mm)	1200*1000 or customized size

CCEWOOL® Ceramic Fiber Board MD



Temperature Grade 1260°C(2300°F)

CCEWOOL® Ceramic Fiber Board MD is produced from high-purity alumina-silicate fibers with a certain proportion of inorganic or organic binders added. It is manufactured through processes such as pressing, curing, shaping, longitudinal and transverse cutting, resulting in a rigid board with outstanding performance. CCEWOOL® Ceramic Fiber Board MD is designed to meet the demanding requirements of modern industry, offering high strength and rigidity while exhibiting excellent insulation properties and high-temperature stability. The surface of CCEWOOL® Ceramic Fiber Board MD is flat, and it is available in various standard thicknesses for selection.

CHARACTERISTICS

- Low heat capacity, low thermal conductivity;
- Non-brittle material, good elasticity;
- High compressive strength;
- Excellent wind-erosion resistance, long service life;
- Excellent thermal stability and thermal shock resistance;
- Continuous production, even fiber distribution and stable performance;
- Good sound insulation;
- Good anti-stripping properties;
- Easily molded or cut, easy to install;
- Accurate sizes and good flatness.

APPLICATIONS

- High temperature kiln and furnace linings;
- Rigid high temperature gaskets and seals;
- Heat shields;
- Gas boiler combustion chamber linings;
- Furnace hot face lining in ceramic kiln, box furnace & petrochemical furnace;
- Use in industrial heat processing equipment;
- High-temperature baffles & muffles;
- Flue & chimney linings in furnaces & kilns;
- Industrial heat shields & thermal barriers.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Board MD

Classification Temperature (°C)(°F)	1260°C(2300°F)
Operation Temp(°C)(°F)	1050°C(1922°F)
Color	white
Permanent Linear Change on Heating (%)	
®950C,24hrs	-
®1200C,24hrs	3
®1300C,24hrs	-
®1350C,24hrs	-
Thermal Conductivity (w/m.k)	
600°C	-
800°C	0.13
1000°C	0.19
Rupture Strength (Mpa)	
Thickness≤25mm	0.5
Thickness >25mm	0.2
Chemical Composition (%)	
Al ₂ O ₃	≥44
SiO ₂	≥52
ZrO ₂	-
Package	Carton box or pallet
Specification	
Thickness (mm)	20.25.50.80.100
Size (mm)	1200*1000 or customized size

CCEWOOL® Ceramic Fiber Board HD



CHARACTERISTICS

- Low heat capacity, low thermal conductivity;
- Non-brittle material, good elasticity;
- High compressive strength;
- Excellent wind-erosion resistance, long service life;
- Excellent thermal stability and thermal shock resistance;
- Continuous production, even fiber distribution and stable performance;
- Good sound insulation;
- Good anti-stripping properties;
- Easily molded or cut, easy to install;
- Accurate sizes and good flatness.

APPLICATIONS

- Full thickness refractory lining;
- Insulating backup to dense refractories;
- Insulating backup to brick & castable;
- Furnace hot face lining in ceramic kiln, box furnace & petrochemical furnace;
- Board over blanket hot face lining;
- Rigid high-temperature gaskets & seals;
- High-temperature baffles & muffles;
- Flue & chimney linings in furnaces & kilns;
- Infrared element supports;
- Glass tank side & end wall & port neck insulation;
- Trough linings for conveying molten metals;
- Molten metal trough covers;
- Thermal insulation where high velocities are encountered;
- Heat shields for personnel protection;
- Hot gas duct linings;
- Low- & high-temperature dryers;
- Pouring forms for castable;
- Expansion joints.

Temperature Grade 1260°C(2300°F)

CCEWOOL® Ceramic Fiber Board HD insulation material is a high-density board product made primarily from alumina-silicate fibers with the addition of binders. This product has a tough texture, excellent self-supporting strength, and compressive strength, making it highly resistant to the impact of molten metals. The compressive strength of CCEWOOL® Ceramic Fiber Board HD is more than ten times that of typical refractory ceramic fiber boards. It is a high-strength fiberboard available in various standard thicknesses for selection.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Board HD	
Classification Temperature (°C)(°F)	1260°C(2300°F)
Operation Temp(°C)(°F)	1050°C(1922°F)
Color	white
Permanent Linear Change on Heating (%)	
@950C,24hrs	-
@1200C,24hrs	3
@1300C,24hrs	-
@1350C,24hrs	-
Thermal Conductivity (w/m.k)	
600°C	-
800°C	0.13
1000°C	0.19
Rupture Strength (Mpa)	
Thickness≤25mm	0.5
Thickness>25mm	0.2
Chemical Composition (%)	
Al ₂ O ₃	≥44
SiO ₂	≥52
ZrO ₂	-
Package	Carton box or pallet
Specification	
Thickness (mm)	25.50.80.100
Size (mm)	1200*1000 or customized size

CCEWOOL® Ceramic Fiber Board RG



CHARACTERISTICS

- Low heat capacity, low thermal conductivity;
- Non-brittle material, good elasticity;
- High compressive strength;
- Excellent wind-erosion resistance, long service life;
- Excellent thermal stability and thermal shock resistance;
- Continuous production, even fiber distribution and stable performance;
- Good sound insulation;
- Good anti-stripping properties;
- Easily molded or cut, easy to install;
- Accurate sizes and good flatness.

APPLICATIONS

- Full thickness refractory lining;
- Insulating backup to dense refractories;
- Insulating backup to brick & castable;
- Furnace hot face lining in ceramic kiln, box furnace & petrochemical furnace;
- Board over blanket hot face lining;
- Use in industrial heat processing equipment;
- Rigid high-temperature gaskets & seals;
- High-temperature baffles & muffles;
- Flue & chimney linings in furnaces & kilns;
- Infrared element supports;
- Glass tank side & end wall & port neck insulation;
- Trough linings for conveying molten metals;
- Molten metal trough covers;
- Thermal insulation where high velocities are encountered;
- Heat shields for personnel protection;
- Hot gas duct linings;
- Low- & high-temperature dryers;
- Pouring forms for castable;
- Expansion joints;
- Industrial heat shields & thermal barriers;
- Industrial combustion chamber construction;
- Domestic appliance & light-duty industrial combustion chamber construction;
- Wood-burning stove backup insulation.

Temperature Grade 1260°C(2300°F)

CCEWOOL® Ceramic Fiber Board RG insulation material is an economical and efficient insulation board. The surface of the board is coated with a hardening agent, which, after drying, provides the board with rigid characteristics. It is suitable for applications that require rigid strength in the product. This material offers high resistance to fracture, compressive strength, wear resistance, and resistance to thermal gas erosion.

CCEWOOL® Ceramic Fiber Board RG insulation material is ideal for use as an alternative material for dense refractories (such as refractories used in the glass industry) and can also be used as a thermal protection layer for blanket linings. The rigid surface helps suppress dust during installation and operation. Various standard thicknesses are available for selection.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Board RG

Classification Temperature (°C)(°F)	1260°C(2300°F)
Operation Temp(°C)(°F)	1050°C(1922°F)
Color	white
Permanent Linear Change on Heating (%)	
@950C,24hrs	-
@1200C,24hrs	3
@1300C,24hrs	-
@1350C,24hrs	-
Thermal Conductivity (w/m.k)	
600°C	-
800°C	0.13
1000°C	0.19
Rupture Strength (Mpa)	
Thickness≤25mm	0.5
Thickness>25mm	0.2
Chemical Composition (%)	
Al2O3	≥44
SiO2	≥52
ZrO2	-
Package	Carton box or pallet
Specification	
Thickness (mm)	50.80.100
Size (mm)	1200*1000 or customized size

CCEWOOL® Ceramic Fiber Board LZ



CHARACTERISTICS

- Low heat capacity, low thermal conductivity;
- Non-brittle material, good elasticity;
- High compressive strength;
- Excellent wind-erosion resistance, long service life;
- Excellent thermal stability and thermal shock resistance;
- Continuous production, even fiber distribution and stable performance;
- Good sound insulation;
- Good anti-stripping properties;
- Easily molded or cut, easy to install;
- Accurate sizes and good flatness.

APPLICATIONS

- refractory lining;
- Insulating backup to dense refractory materials;
- Insulating backup to brick & castable;
- Furnace hot face lining in ceramic kiln, box furnace & petrochemical furnace;
- Use in industrial heat processing equipment;
- Rigid high-temperature gaskets & seals;
- High-temperature baffles & muffles;
- Flue & chimney linings in furnaces & kilns;
- Molten metal trough covers;
- Hot gas duct linings;
- Expansion joints;
- Industrial heat shields & thermal barriers;
- Industrial combustion chamber construction;
- Domestic appliance & light-duty industrial combustion chamber construction.

Temperature Grade 1400°C(2550°F)

CCEWOOL® Ceramic Fiber Board LZ is a zirconium alumina refractory ceramic fiber board made from low-zirconium refractory ceramic fiber spun cotton as raw material, produced through a fully automated vacuum forming process. It operates continuously for 24 hours and dries quickly, resulting in better compressive strength. The surface is smooth, the dimensions are precise, and it is easy to install. It is a refractory fiber insulation material capable of withstanding high temperatures up to 1400°C (2550°F). There are various standard thicknesses available for selection.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Board LZ	
Classification Temperature (°C)(°F)	1400°C (2550°F)
Operation Temp(°C)(°F)	1200°C(2192°F)
Permanent Linear Change on Heating (%)	
@950C,24hrs	-
@1200C,24hrs	-
@1300C,24hrs	3
@1350C,24hrs	-
Thermal Conductivity (w/m.k)	
600°C	-
800°C	0.12
1000°C	0.2
Rupture Strength (Mpa)	
Thickness≤25mm	0.5
Thickness > 25mm	0.2
Chemical Composition (%)	
Al ₂ O ₃	≥44
SiO ₂	≥50
ZrO ₂	≥5
Package	Carton box or pallet
Specification	
Thickness (mm)	20.25.50.80.100
Size (mm)	1200*1000 or customized size

CCEWOOL® Ceramic Fiber Board 2600



Temperature Grade 1430°C(2600°F)

CCEWOOL® Ceramic Fiber Board 2600 is an insulating material that contains zirconium refractory ceramic fibers. Zirconium is added to the production raw materials to form a high-temperature resistant zirconium-containing insulation board, providing high stability at high temperatures. It has a long-term working temperature of approximately 1350°C (2462°F). CCEWOOL® Ceramic Fiber Board 2600 exhibits excellent chemical stability and can resist the corrosion of most corrosive media. It can withstand oxidation and reduction at high temperatures.

CHARACTERISTICS

- Low heat capacity, low thermal conductivity;
- Non-brittle material, good elasticity;
- High compressive strength;
- Excellent wind-erosion resistance, long service life;
- Excellent thermal stability and thermal shock resistance;
- Continuous production, even fiber distribution and stable performance;
- Good sound insulation;
- Good anti-stripping properties;
- Easily molded or cut, easy to install;
- Accurate sizes and good flatness.

APPLICATIONS

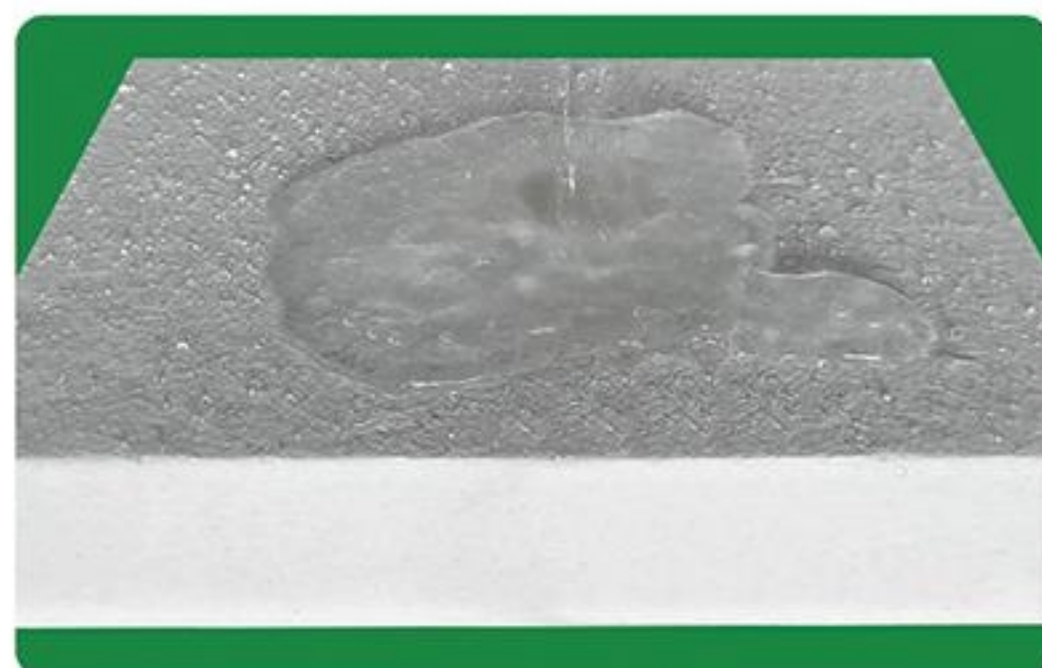
- Full thickness refractory lining;
- Insulating backup to dense refractories;
- Insulating backup to brick & castable;
- Furnace hot face lining in ceramic kiln, box furnace & petrochemical furnace;
- Board over blanket hot face lining;
- Rigid high-temperature gaskets & seals;
- High-temperature baffles & muffles;
- Flue & chimney linings in furnaces & kilns;
- Infrared element supports;
- Glass tank side & end wall & port neck insulation;
- Trough linings for conveying molten metals;
- Molten metal trough covers;
- Thermal insulation where high velocities are encountered;
- Heat shields for personnel protection;
- Hot gas duct linings;
- Low- & high-temperature dryers;
- Pouring forms for castable;
- Expansion joints.



TECHNICAL DATA

CCEWOOL® Ceramic Fiber Board 2600	
Classification Temperature (°C)(°F)	1430°C (2600°F)
Operation Temp(°C)(°F)	1350°C(2462°F)
Permanent Linear Change on Heating (%)	
@950C,24hrs	-
@1200C,24hrs	-
@1300C,24hrs	-
@1350C,24hrs	3
Thermal Conductivity (w/m.k)	
600°C	-
800°C	0.16
1000°C	0.2
Rupture Strength (Mpa)	
Thickness≤25mm	0.5
Thickness>25mm	0.2
Chemical Composition (%)	
Al2O3	≥35
SiO2	≥49
ZrO2	≥15
Package	Carton box or pallet
Specification	
Thickness (mm)	20.25.50.80.100
Size (mm)	1200*1000 or customized size

CCEWOOL® Water Repellent Ceramic Fiber Board



CCEWOOL® Water Repellent Ceramic Fiber Board is a kind of refractory ceramic fiber board which combines water proof, thermal insulation and fire resistance in one. We added a hydrophobic formula to the raw materials, and use full automatic production line, 2 hours deep drying to dry the refractory ceramic fiber board completely which realizes the overall hydrophobicity for our refractory ceramic fiber board. The hydrophobicity of CCEWOOL® Water Repellent Ceramic Fiber Board under 200°C is above 99%.

CCEWOOL® Water Repellent Ceramic Fiber Board is specially developed for preventing the moisture in thermal insulation. It is especially suitable for fire protection, thermal insulation, sound insulation and noise reduction in marine and other high humidity environments. It greatly improves the thermal insulation performance of the fiber and prevented problems of thermal insulation performance reducing and thermal insulation layer corrosion caused by conventional refractory ceramic fiber board's moisture absorption.

CHARACTERISTICS

Good hydrophobic property, hydrophobic rate more than 98%;
Low thermal conductivity, non-combustible, moisture-proof, good sound absorption;
Good rigid property, high-strength, anti-vibration, corrosion;
Convenient construction, good stability, long useful life.

APPLICATIONS

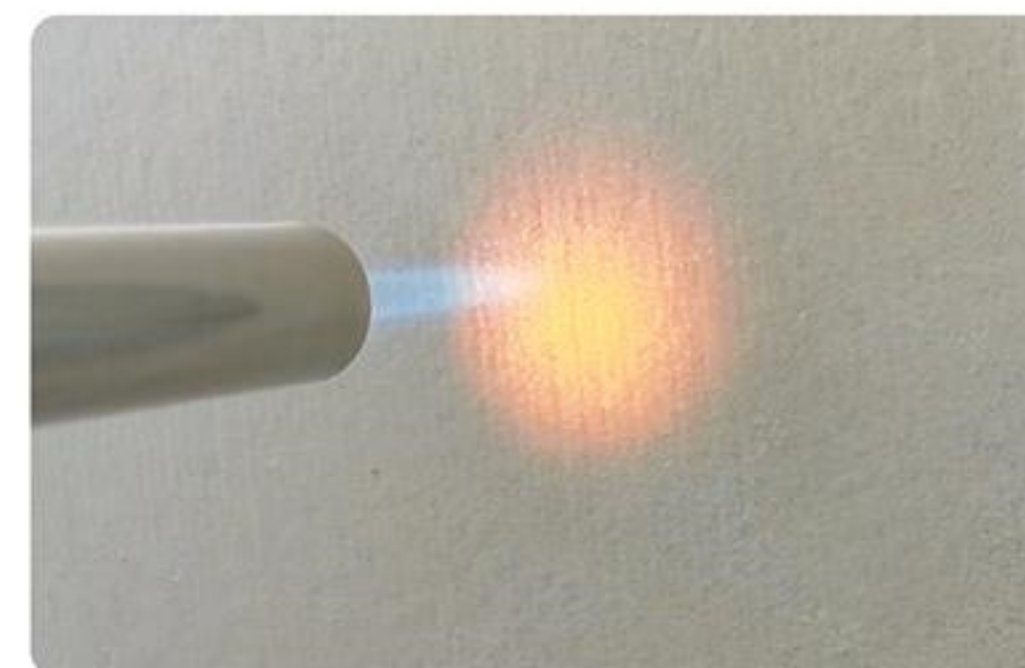
Widely used in shipping building, metallurgical machinery, petro-chemical industry;
Nuclear power, automobile;
Municipal heating system and building;
Wall composite and proof insulation;
Sound barrier;
Architectural soundproofing;
Marine (or Ships).

TECHNICAL DATA

CCEWOOL® Water Repellent Ceramic Fiber Board

Type(°C)	1100°C (2012°F)	1260°C (2300°F)
Permanent Linear Change on Heating (%)	950°Cx24h<=-2.5	1050°Cx24h<=-2
Theoretic Heat Conductivity Co-efficient (w/m.k) (800°C)	<=0.116	<=0.135
Theoretical density (kg/m3)	220	300
Water content (%)	<=1	
organic content (%)	<=6	
Hydrophobicity	>=98%	
Regular Size (mm)	1200x600mm	
	Thickness: 25/50mm	
Package	Carton/Pallet	

CCEWOOL® Inorganic Ceramic Fiber Board



CCEWOOL has developed pure inorganic ceramic fiber boards and inorganic shaped pieces tailored to market demands. These products are manufactured on a proprietary production line with the addition of an inorganic binder. Used in domestic appliances and smoke-free thermal equipment (such as electric heating stoves, wall-mounted boilers, and spinning ducts), these fire-resistant insulation materials do not blacken at high temperatures and are smokeless and odorless. They also boast excellent strength and hardness, with no significant reduction in post-fire strength.

CHARACTERISTICS

Low heat capacity, low thermal conductivity;
Non-brittle material, good elasticity;
High compressive strength;
Excellent wind-erosion resistance, long service life;
Excellent thermal stability and thermal shock resistance;
Continuous production, even fiber distribution and stable performance;
Good sound insulation;
Good anti-stripping properties;
Easily molded or cut, easy to install;
Accurate sizes and good flatness.

APPLICATIONS

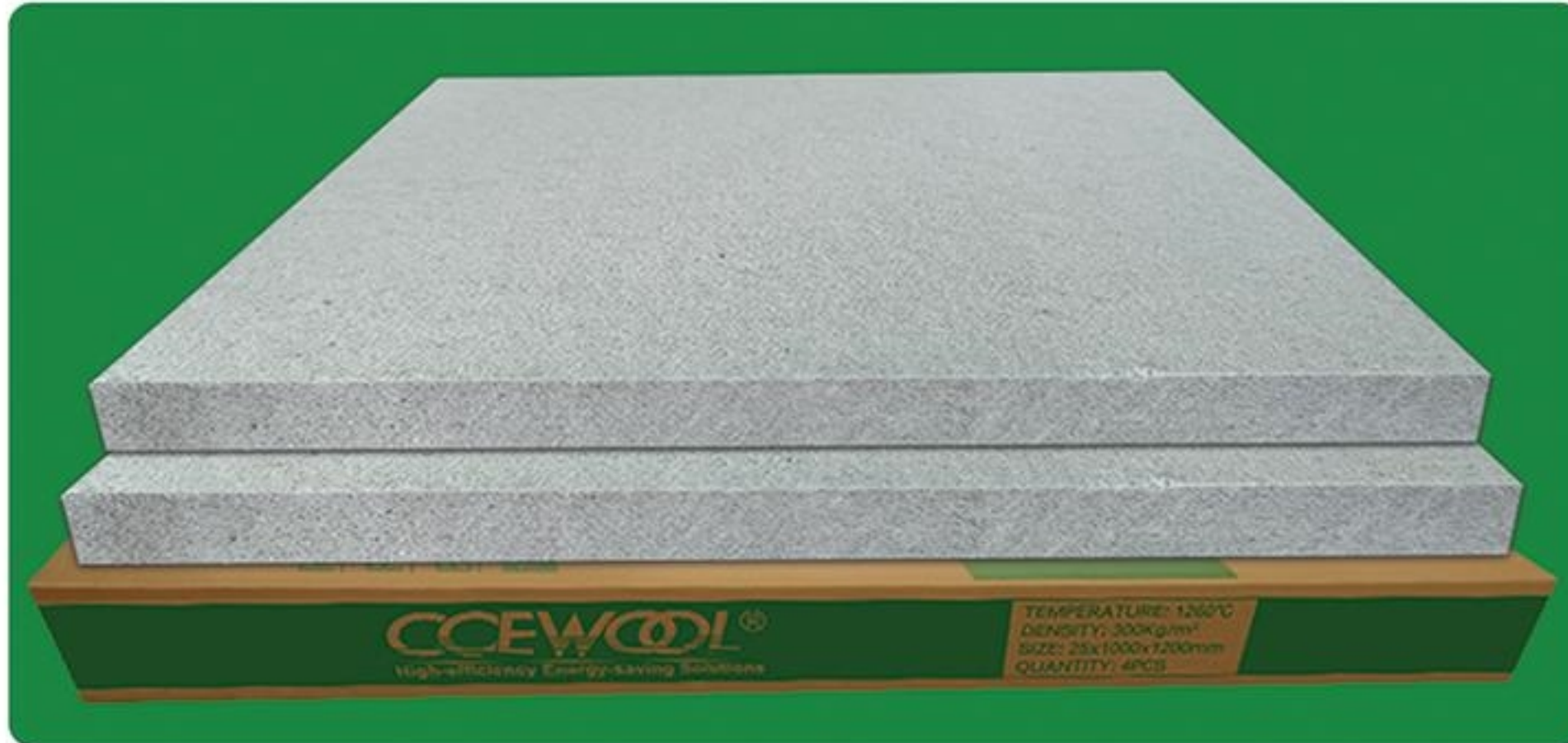
Iron and steel industry: All heat treatment furnace lining, expansion joints, backing insulation, thermal insulation and mold insulation, steel mill ladle, tundish, ladle and refined ladle back linings;
Non-ferrous metals industry: Firebrick back lining for tundish, slot cover and aluminum plant electrolytic reduction cell;
Ceramics industry: lightweight kiln car structure and the furnace hot face lining, separation and fire position for all kiln temperature zones;
Glass industry: As furnace hearth back insulation lining, burner blocks;
Kiln construction: Hot surface refractories, heavy refractory back linings, expansion joints.
Light industry: Industrial and household boiler combustion chamber lining;
Petrochemical industry: as high-temperature furnace hot surface lining material;
Craft glass: As craft glass or other deep-processed and molded products mold;
Cement and construction materials: furnace back thermal insulation lining.

TECHNICAL DATA

CCEWOOL® Inorganic Ceramic Fiber Board

Classification Temperature	1260°C(2300°F)
Density (kg/m3)	320/360
Loss on ignition (%)	≤ 2
Normal temperature compressive strength (MPa)	≥0.15
Post-Firing Compressive Strength (MPa)	≥0.15
Surface Hardness (Hc)	≥60
Thermal Conductivity (W/m-K)	≤0.135 (500°C)
Common Specifications and Dimensions (mm)	900*600*20-50

CCEWOOL® 1900 LTC Fiber Board



Temperature Grade 1900°F, 2600°F

CCEWOOL® 1900 LTC Fiber Board, independently developed by our company, combining micro-nano technology and infrared shielding technology, achieves lower thermal conductivity and better insulation performance. Its thermal insulation performance is 20-50% better than traditional lightweight fire-resistant materials. The thermal insulation principle of CCEWOOL® 1900 LTC Fiber Board is through compositing refractory ceramic fiber and high efficient thermal insulation agent to reduce heat conduction, heat convection and heat radiation, thus resulting in lower thermal conductivity.

CCEWOOL® 1900 LTC Fiber Board provides high strength stability and excellent workability. We can produce water repellent ultra low thermal conductivity board which has good water resistance, so the board will not absorb the moisture of adjacent fire-resistant materials. Due to its ultra-low thermal conductivity it has better thermal insulation performance than most of the other insulation materials on market, it will surely replace most of the refractory ceramic fiber boards in future.

CHARACTERISTICS

- Ultra-low thermal conductivity;
- Low thermal storage;
- High tensile strength;
- Excellent thermal shock resistance;
- Excellent corrosion resistance.

APPLICATIONS

- Refractory Lining;
- Back lining insulation for dense refractory materials;
- Back lining insulation for refractory bricks and castables;
- Hot surface lining of ceramic kilns, box furnaces, and petrochemical furnace;
- Used in industrial heat processing equipment;
- Rigid high-temperature sealing gasket;
- High temperature shields;
- Insulation lining for flues and chimneys;
- Molten metal tank covers;
- Hot gas pipe lining;
- Expansion joints;
- Industrial insulation covers and insulation layers;
- Industrial combustion chamber;
- Light industrial combustion chamber.

TECHNICAL DATA

CCEWOOL® 1900 LTC Fiber Board		
Product Name	1900 LTC	2600 LTC
Theoretical Bulk Density (Kg/m ³)	300	320
Cold Compressive Strength (MPa)	≥0.15	
Compressive Strength After Heating (MPa)	≥0.1	
Permanent Linear Change After Heating (%)	≤3(1050°C×24h)	≤3(1200°C×24h)
Thermal Conductivity W/(m·K)	0.09(Average 500°C)	0.1(Average 600°C)
Regular Size (L×W×T)mm	900×600×25/50mm	
	1200×600×25/50mm	

CCEWOOL® Super Duty Ceramic Fiber Board



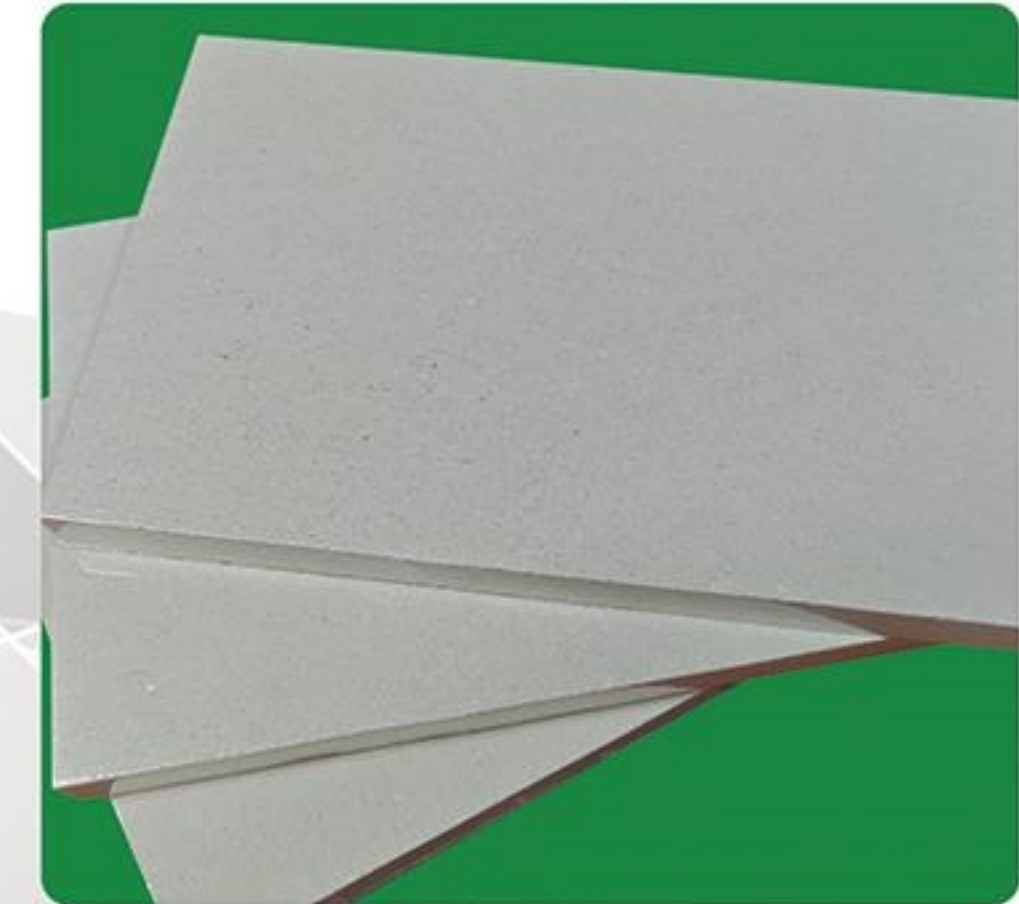
CCEWOOL® Super Duty Ceramic Fiber Board is a new type of refractory and heat insulation material, which is made of refractory ceramic fiber bulk as the main raw material. It can maintain high strength and low thermal conductivity at high temperature. CCEWOOL® Super Duty Ceramic Fiber Board has tough texture. The bearing capacity at normal temperature is greater than 80 t/m² and the bearing capacity at high temperature is greater than 40 t/m². Its compressive strength is more than ten times that of general refractory ceramic fiber board. Its thermal insulation performance is basically the same as that of general refractory ceramic fiber board. It is a kind of high-strength thermal insulation fiber board.

CHARACTERISTICS

- Excellent load bearing capacity;
- Excellent thermal stability;
- Excellent thermal shock resistance;
- Low thermal conductivity;
- Low heat storage;
- Can be machined, cut and shaped easily.

APPLICATIONS

- Back lining in ladle, tundish, torpedo car and hot metal ditch;
- Load-bearing of kiln trolley;
- Load-bearing of aluminum reduction cell bottom;
- Cover plate for reformer floor tubes;
- High temperature flange gasket for heat treatment furnace.



TECHNICAL DATA

CCEWOOL® Super Duty Ceramic Fiber Board

Description	600 Super Duty Board	900 Super Duty Board
Density (kg/m ³)	600	900
Modules of Rupture (MPa)	≥2.0 Before Firing	≥4.0 Before Firing
	≥0.8 After Firing	≥1.2 After Firing
Compressive Strength (MPa, 10% relative deformation)	≥0.8 Before Firing	≥4.0 Before Firing
	≥0.4 After Firing	≥2.5 After Firing
Permanent Linear Shrinkage (%)	1100°C X 24h ≤ 3.0	1100°C X 24h ≤ 3.0
Thermal Conductivity (W/m·K)		
300°C	0.08	0.12
400°C	0.09	0.13
500°C	0.1	0.14

CCEWOOL® Ultra Thin Ceramic Fiber Board



CCEWOOL® ultra thin ceramic fiber board's thickness range is from 5 to 10mm. Manufactured from automatic production line provides it with precise thickness and high compressive strength. It is widely used in electrical appliance and electronic equipment.

CHARACTERISTICS

- Ultra thin thickness range is 5 -10mm;
- Low heat capacity, low thermal conductivity;
- Non-brittle material, good elasticity;
- High compressive strength;
- Excellent wind-erosion resistance, long service life;
- Excellent thermal stability and thermal shock resistance;
- Continuous production, even fiber distribution and stable performance;
- Good sound insulation;
- Good anti-stripping properties;
- Easily molded or cut, easy to install;
- Accurate sizes and good flatness.

APPLICATIONS

Electrical appliance and electronic equipment.

TECHNICAL DATA

CCEWOOL® Ultra Thin Ceramic Fiber Board

Classification temperature	1100 (2012°F)	1260 STD (2300°F)	1260 HP (2300°F)	1400 (2550°F)	1430 HZ (2600°F)
Operation Temp°C	950	1050	1100	1200	1350
Permanent Linear Change on Heating (%)					
@950C,24hrs	4	-	-	-	-
@1200C,24hrs	-	3	3	-	-
@1300C,24hrs	-	-	-	3	-
@1350C,24hrs	-	-	-	-	3
Thermal Conductivity (w/m.k)					
600°C	0.13	-	-	-	-
800°C	0.2	0.13	0.13	0.12	0.16
1000°C	-	0.19	0.19	0.2	0.2
Rupture Strength (Mpa)					
Thickness≤25mm	0.5	0.5	0.5	0.5	0.5
Thickness>	0.2	0.2	0.2	0.2	0.2
Chemical Composition (%)					
Al ₂ O ₃	37	46	46-49	52-55	39-40
Al ₂ O ₃ +SiO ₂	96	97	99	99	-
ZrO ₂	-	-	-	-	15-17
Al ₂ O ₃ +SiO ₂ +ZrO ₂	-	-	-	-	99
Fe ₂ O ₃	≤1.0	≤0.8	≤0.2	≤0.2	≤0.2
Na ₂ O+K ₂ O	≤0.8	≤0.5	≤0.2	≤0.2	≤0.2
Package	Carton box or pallet				
Specification					
Thickness (mm)	5, 10				
Density (kg/m ³)	320, 350				
Size (mm)	1200*1000 or customized size				



CCEWOOL® Large Size Ceramic Fiber Board

CCEWOOL® large size ceramic fiber board enjoys a host of characteristics such as light weight, precise size, high compressive strength, which is easy for installation, the max width is 1.8m.

CHARACTERISTICS

- Intact, super large size;
- Excellent fireproof property;
- Low thermal conductivity;
- Low thermal storage;
- Accurate size, good flatness.

APPLICATIONS

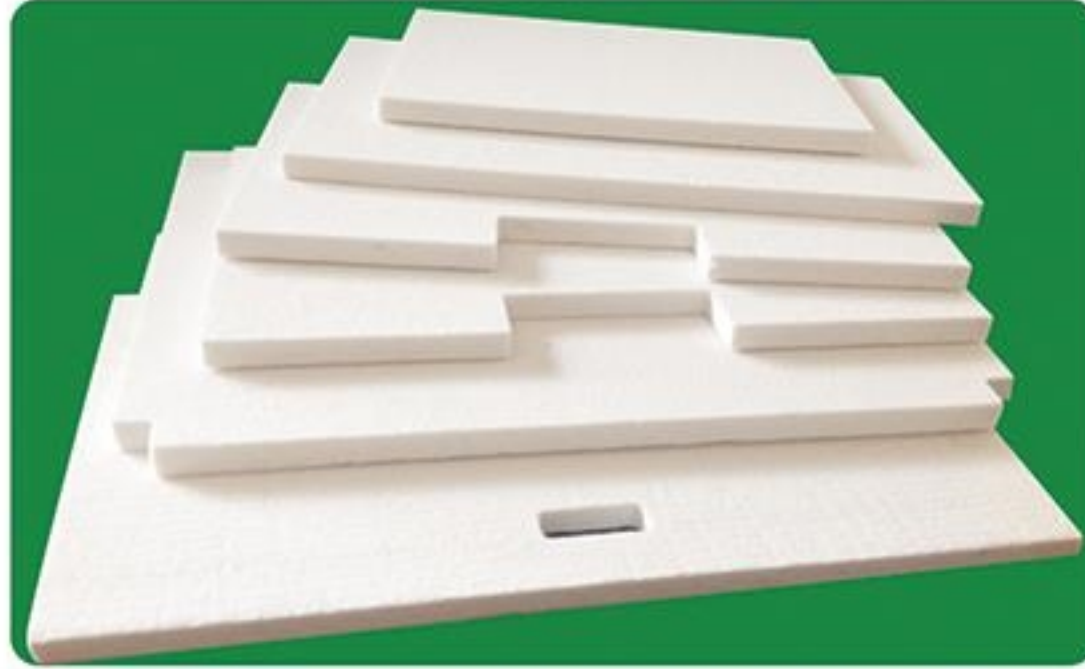
- refractory lining;
- Insulating backup to dense refractory materials;
- Insulating backup to brick & castable;
- Furnace hot face lining in ceramic kiln, box furnace & petrochemical furnace;
- Use in industrial heat processing equipment;
- Rigid high-temperature gaskets & seals;
- High-temperature baffles & muffles;
- Flue & chimney linings in furnaces & kilns;
- Molten metal trough covers;
- Hot gas duct linings;
- Expansion joints;
- Industrial heat shields & thermal barriers;
- Industrial combustion chamber construction;
- Domestic appliance & light-duty industrial combustion chamber construction.

TECHNICAL DATA

CCEWOOL® Large Size Ceramic Fiber Board

Classification	1100	1260 STD	1260 HP	1400	1430 HZ
Operation Temp°C	950	1050	1100	1200	1350
Permanent Linear Change on Heating (%)					
@950C,24hrs	4	-	-	-	-
@1200C,24hrs	-	3	3	-	-
@1300C,24hrs	-	-	-	3	-
@1350C,24hrs	-	-	-	-	3
Thermal Conductivity (w/m.k)					
600°C	0.13	-	-	-	-
800°C	0.2	0.13	0.13	0.12	0.16
1000°C	-	0.19	0.19	0.2	0.2
Rupture Strength (Mpa)					
Thickness≤25mm	0.5	0.5	0.5	0.5	0.5
Thickness>25mm	0.2	0.2	0.2	0.2	0.2
Chemical Composition (%)					
Al ₂ O ₃	37	46	46-49	52-55	39-40
Al ₂ O ₃ +SiO ₂	96	97	99	99	-
ZrO ₂	-	-	-	-	15-17
Al ₂ O ₃ +SiO ₂ +ZrO ₂	-	-	-	-	99
Fe ₂ O ₃	≤1.0	≤0.8	≤0.2	≤0.2	≤0.2
Na ₂ O+K ₂ O	≤0.8	≤0.5	≤0.2	≤0.2	≤0.2
Package	Carton box or pallet				
Specification					
Thickness (mm)	20, 25, 50				
Density (kg/m ³)	280, 300, 320				
Size (mm)	1200*2400 or customized size				

CCEWOOL Ceramic Fiber Board for Fireplace and Gas Boiler



CCEWOOL® Ceramic fiber board for fireplace and gas boiler is an ultra thin ceramic fiber board made from 9 shot-removal process, enjoys a series of characteristics like low shot content, uniform density and thickness, rigid, smooth surface. CCEWOOL® Ceramic fiber board for fireplace and gas boiler is easy for machining and cutting, all physical properties are better than regular made ceramic fiber board. Compared with the normal ceramic fiber boards of the same density, they are 20% harder. This product is customized for wall hung furnace manufacturers, a range of specifications and shapes are available.



TECHNICAL DATA

CCEWOOL® Ceramic Fiber Board for Fireplace and Gas Boiler

Classification Temperature (°C)(°F)	1260°C(2300°F)
Operation Temp(°C)(°F)	1050°C(1922°F)
Color	white
Permanent Linear Change on Heating (%)	
@950C,24hrs	-
@1200C,24hrs	3
@1300C,24hrs	-
@1350C,24hrs	-
Thermal Conductivity (w/m.k)	
600°C	-
800°C	0.13
1000°C	0.19
Rupture Strength (Mpa)	
Thickness≤25mm	0.5
Thickness > 25mm	0.2
Chemical Composition (%)	
Al ₂ O ₃	≥44
SiO ₂	≥52
ZrO ₂	-
Package	Carton box or pallet
Specification	
Thickness (mm)	10
Density (kg/m ³)	320. 350
Size (mm)	Customized size

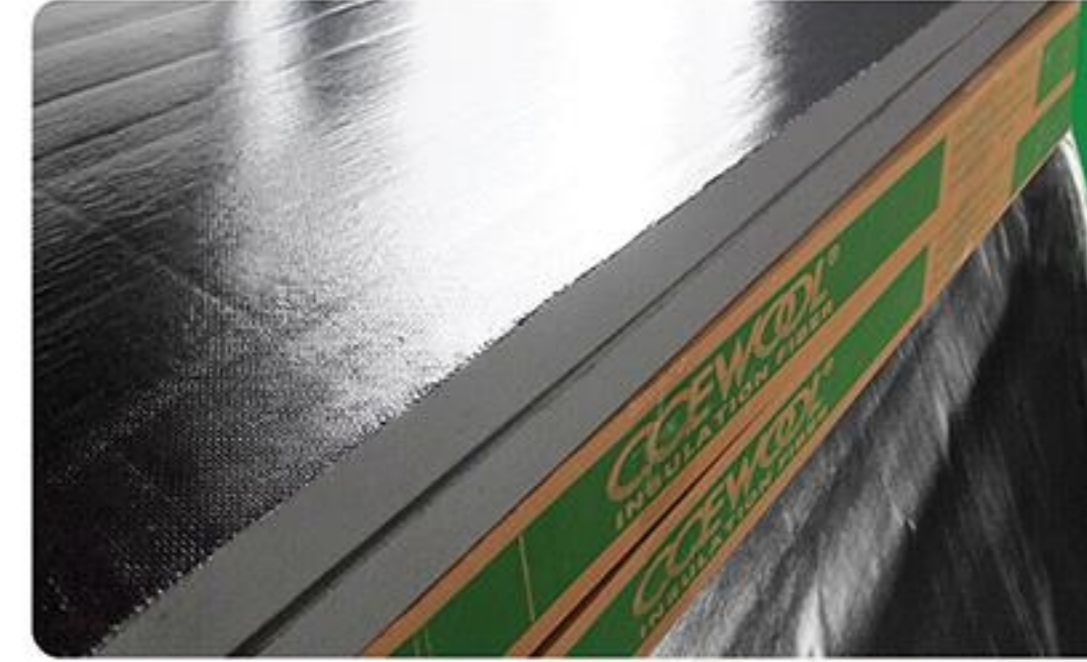
CHARACTERISTICS

Low heat capacity, low thermal conductivity;
 Non-brittle material, good elasticity;
 High compressive strength;
 Excellent wind-erosion resistance, long service life;
 Excellent thermal stability and thermal shock resistance;
 Continuous production, even fiber distribution and stable performance;
 Good sound insulation;
 Good anti-stripping properties;
 Easily molded or cut, easy to install;
 Accurate sizes and good flatness.

APPLICATIONS

Wall hung furnace, gas boiler heat insulation and refractory

CCEWOOL® Aluminum Foil Ceramic Fiber Board



CCEWOOL® aluminum foil ceramic fiber board is using special equipment and binder to bond the ceramic fiber blanket with alumina foil to form a composite products with integrated structure. The alumina foil is qualified with Europe standard, one-off adhesive and has good bond effect. One side, two sides and six sides aluminum foil are available.



TECHNICAL DATA

CCEWOOL® Aluminum Foil Ceramic Fiber Board

Classification temperature	1100 (2012°F)	1260 STD (2300°F)	1260 HP (2300°F)	1400 (2550°F)	1430 HZ (2600°F)
Operation Temp°C	950	1050	1100	1200	1350
Permanent Linear Change on Heating (%)					
@950C,24hrs	4	-	-	-	-
@1200C,24hrs	-	3	3	-	-
@1300C,24hrs	-	-	-	3	-
@1350C,24hrs	-	-	-	-	3
Thermal Conductivity (w/m.k)					
600°C	0.13	-	-	-	-
800°C	0.2	0.13	0.13	0.12	0.16
1000°C	-	0.19	0.19	0.2	0.2
Rupture Strength (Mpa)					
Thickness≤0.5	0.5	0.5	0.5	0.5	0.5
Thickness > 25mm	0.2	0.2	0.2	0.2	0.2
Chemical Composition (%)					
Al ₂ O ₃	37	46	46-49	52-55	39-40
Al ₂ O ₃ +SiO ₂	96	97	99	99	-
ZrO ₂	-	-	-	-	15-17
Al ₂ O ₃ +SiO ₂ +ZrO ₂	-	-	-	-	99
Fe ₂ O ₃	≤1.0	≤0.8	≤0.2	≤0.2	≤0.2
Na ₂ O+K ₂ O	≤0.8	≤0.5	≤0.2	≤0.2	≤0.2
Package	Carton box or pallet				
Specification					
Thickness (mm)	20.25.50.80.100				
Density (kg/m ³)	280. 300. 320. 350				
Size (mm)	1200*1000 or customized size				

CHARACTERISTICS

Ultra thin thickness range is 5 -10mm;
 Low heat capacity, low thermal conductivity;
 Non-brittle material, good elasticity;
 High compressive strength;
 Excellent wind-erosion resistance, long service life;
 Excellent thermal stability and thermal shock resistance;
 Continuous production, even fiber distribution and stable performance;
 Good sound insulation;
 Good anti-stripping properties;
 Easily molded or cut, easy to install;
 Accurate sizes and good flatness.

APPLICATIONS

Vessel, aerospace.



CCEWOOL® Ceramic Fiber Paper

CCEWOOL® ceramic fiber paper is manufactured from high purity ceramic fiber with a little binders, through 9 shot-removal process. The product shows excellent thermal insulation properties and construction performance, especially suitable for deep processing (multi-layer composite, punching, etc.); and excellent resistance to molten infiltration, allowing itself to be used for casting washer separation in the construction and glass industries. Temperature varies from 1260°C (2300°F) to 1430°C(2600°F).

CCEWOOL® Ceramic Fiber Paper



CCEWOOL® Ceramic Fiber Paper is produced from high-purity refractory ceramic fibers along with a small amount of binder through a nine-step slag removal process. The product possesses excellent thermal insulation and construction properties, making it highly suitable for deep processing (such as multi-layer composites, punching, etc.) for applications including high-temperature insulation, thermal insulation, sealing, electrical insulation, sound absorption, filtration, and more.

Its exceptional resistance to molten metal penetration allows the product to be used as casting gaskets for isolation in the construction and glass industries. Refractory ceramic fiber paper is available in thicknesses ranging from 0.5 to 12mm and can be cut into various sizes and shapes according to customer requirements.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Paper			
Item	1260S	1400	1430HZ
Operation Temperature	1050°C(1922°F)	1200°C(2192°F)	1350°C(2462°F)
Density (kg/m3)	180-200		
Tensile Strength (PSI)	58	94	136
Linear Shrinkage (%)			
@1000C,24hrs	2	-	-
@1100C,24hrs	-	2	-
@1200C,24hrs	-	-	2
Lose on ignition (%)	9	9	9
Chemical Composition (%)			
Al2O3	42-47	52-55	39-40
Al2O3+SiO2	97	99	-
ZrO2	-	-	15-17
Fe2O3	1	0.2	0.2
Na2O+K2O	0.5	0.2	0.2
Specification (MM)	60000*610*1;30000*610*2 20000*610*3;15000*610*4 12000*610*5;10000*610*6 Min Width: 5cm		
Package	Inner Plastic Bag +Outer Carton		

CHARACTERISTICS

- Low thermal capacity;
- Low thermal conductivity;
- Excellent electrical insulation properties;
- Excellent machining performance;
- High strength, tear resistance;
- High flexibility;
- Low shot content.

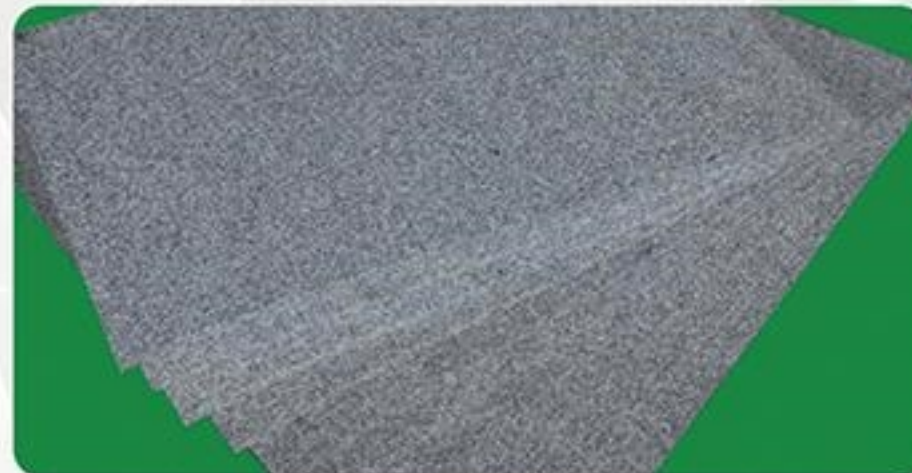
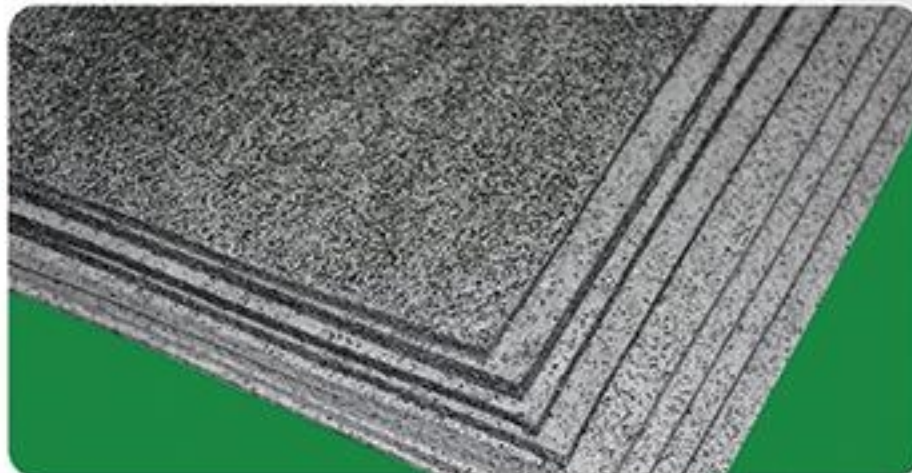
APPLICATIONS

- Automotive and aerospace heat shields;
- Gaskets for ovens, stoves, heaters and other appliances;
- Automotive muffler insulation;
- Investment casting mold wrap;
- Expansion joints filling material;
- Insulation material for instruments and heating element.

CCEWOOL® Intumescent Ceramic Fiber Paper



CCEWOOL® Intumescent Ceramic Fiber Paper is produced from a mixture of high purity refractory ceramic fiber, natural graphite fine flakes, and organic binders through a fiber washing process. At about 1200 °F (649 °C), CCEWOOL® Intumescent Ceramic Fiber Paper expands up to maximum of 400% of its thickness. This feature serves as excellent material for gasket and sealing applications.



CHARACTERISTICS

- Low thermal capacity;
- Low thermal conductivity;
- Excellent electrical insulation properties;
- Excellent machining performance;
- High strength, tear resistance;
- High flexibility;
- Low shot content.

APPLICATIONS

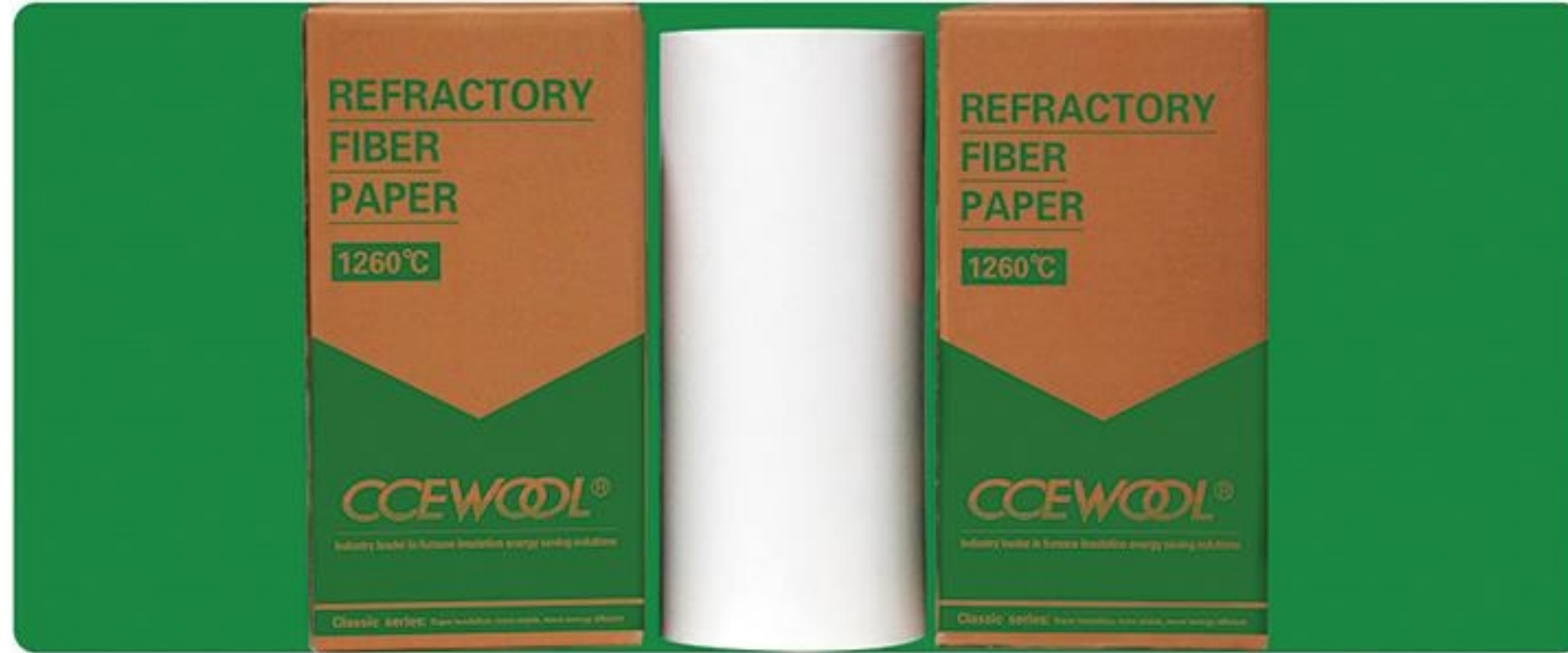
- High temperature gasket and seals;
- Expansion joints insulation material;
- Fire proof;
- Seals for industrial furnaces.



TECHNICAL DATA

CCEWOOL® Intumescent Ceramic Fiber Paper	
Color	Gray
Maximum temperature rating °C	1260(2300°F)
Continuous use limit °C	1050(1922°F)
Melting point °C	1700(3092°F)
Maximum expand	400%
Chemical Content	
Silica, SiO ₂	45-48
Alumina Oxide, Al ₂ O ₃	42
Carbon, C	10-15
Other	2
Organic Binder	5-10
Tensile Strength	
16-18 pcf. density	0.5-0.7 Mpa
Specification	
Sizes Available	610/1220mm
Thickness	2-5mm

CCEWOOL® Ceramic Fiber Retardant Paper



CCEWOOL® ceramic fiber retardant paper is a new research of our company. Up to now, it is the only product which doesn't get burnt when contact fire in ceramic fiber paper field. By adding certain proportion fire retardants into ceramic fiber paper's composition, the paper can be directly contact with fire and won't get burnt.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Retardant Paper			
Item	1260S	1400	1430HZ
Operation Temperature	1050°C(1922°F)	1200°C(2192°F)	1350°C(2462°F)
Density (kg/m ³)	180-200		
Tensile Strength (PSI)	58	94	136
Linear Shrinkage (%)			
@1000C,24hrs	2	-	-
@1100C,24hrs	-	2	-
@1200C,24hrs	-	-	2
Lose on ignition (%)	9	9	9
Chemical Composition (%)			
Al ₂ O ₃	42-47	52-55	39-40
Al ₂ O ₃ +SiO ₂	97	99	-
ZrO ₂	-	-	15-17
Fe ₂ O ₃	1	0.2	0.2
Na ₂ O+K ₂ O	0.5	0.2	0.2
Specification (MM)	60000*610*1;30000*610*2 20000*610*3;15000*610*4 12000*610*5;10000*610*6 Min Width: 5cm		
Package	Inner Plastic Bag +Outer Carton		

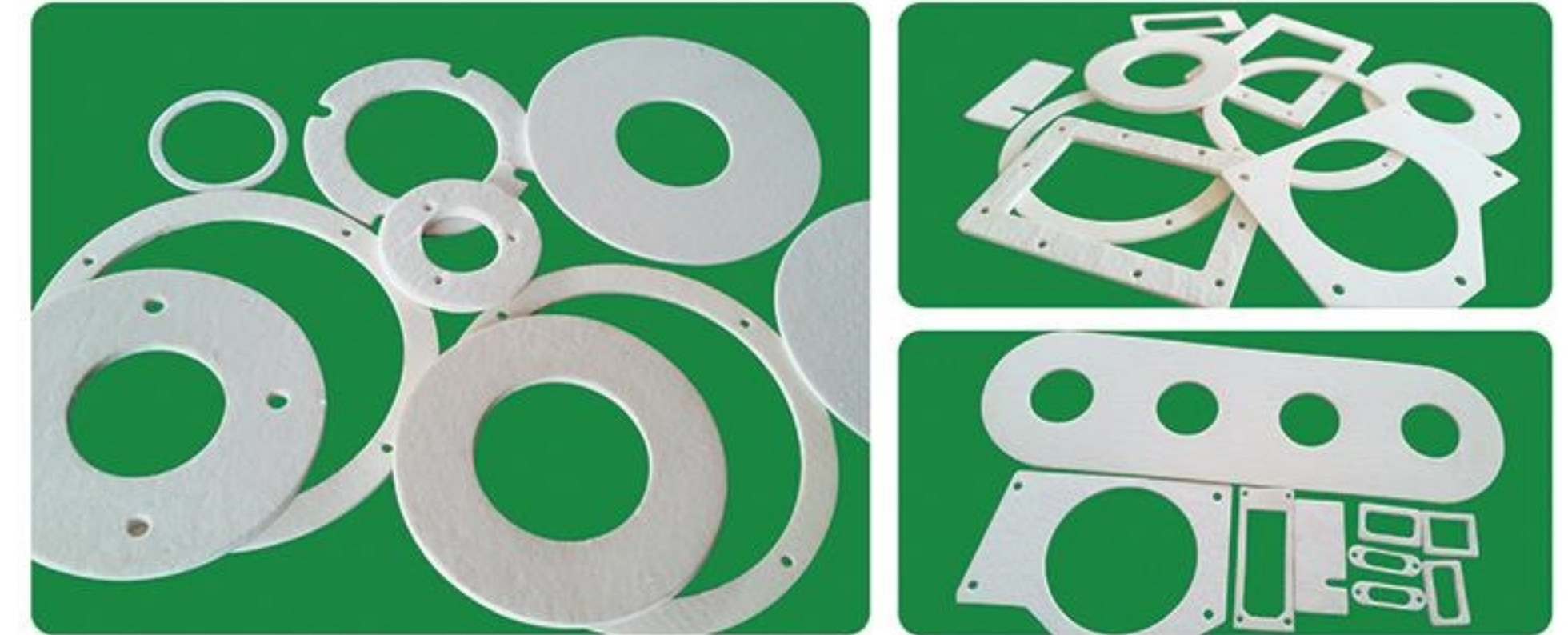
CHARACTERISTICS

- Retardant;
- Low thermal capacity;
- Low thermal conductivity;
- Excellent electrical insulation properties;
- Excellent machining performance;
- High strength, tear resistance;
- High flexibility;
- Low shot content.

APPLICATIONS

- Industrial insulation, sealing, anti-corrosion material;
- Insulation material for instruments and heating element;
- Insulation material for automobile and aerospace industry;
- Expansion joints filling material;
- Isolation for construction material, metallurgy and glass industries;
- Molten metal sealing gasket;
- Fireproof material.

CCEWOOL® Ceramic Fiber Gasket



CCEWOOL® Ceramic Fiber Gasket is made from high-purity ceramic fiber by adding a small amount of binder which will completed burnt out during using process, through production technology with scientific selection and strict control binding. The product shows excellent thermal insulation properties and construction performance, suitable for use in deep processing (multi-layer composite, punching, etc.).

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Gasket			
Item	1260S	1400	1430HZ
Operation Temperature	1050°C(1922°F)	1200°C(2192°F)	1350°C(2462°F)
Density (kg/m ³)	180-200		
Tensile Strength (PSI)	58	94	136
Linear Shrinkage (%)			
@1000C,24hrs	2	-	-
@1100C,24hrs	-	2	-
@1200C,24hrs	-	-	2
Lose on ignition (%)	9	9	9
Chemical Composition (%)			
Al ₂ O ₃	42-47	52-55	39-40
Al ₂ O ₃ +SiO ₂	97	99	-
ZrO ₂	-	-	15-17
Fe ₂ O ₃	1	0.2	0.2
Na ₂ O+K ₂ O	0.5	0.2	0.2
Specification (MM)	60000*610*1;30000*610*2 20000*610*3;15000*610*4 12000*610*5;10000*610*6 Min Width: 5cm		
Package	Inner Plastic Bag +Outer Carton		

CHARACTERISTICS

- Low thermal capacity;
- Low thermal conductivity;
- Excellent electrical insulation properties;
- Excellent machining performance;
- High strength, tear resistance;
- High flexibility;
- Low shot content.

APPLICATIONS

- Industrial insulation, sealing, anti-corrosion material;
- Insulation material for instruments and heating element;
- Insulation material for automobile and aerospace industry;
- Expansion joints filling material;
- Isolation for construction material, metallurgy and glass industries;
- Molten metal sealing gasket;
- Fireproof material;
- Substitute for glass fiber and asbestos fiber.

REFRACTORY FIBER MODULE

1260HP

CCEWOOL®

CCEWOOL® Ceramic Fiber Module

Temperature Grades: 1100°C (2012°F), 1260°C (2300°F), 1400°C (2550°F), 1430°C (2600°F)

CCEWOOL® Ceramic Fiber Module is made from spun refractory ceramic fiber blanket, mechanically processed, and produced according to customer drawings. The product is pure white in color, with uniform dimensions, and can be directly fastened to the steel plate anchor pins on the industrial kiln shell, providing excellent fire resistance and insulation, thereby improving the overall refractory insulation of the kiln. We can design and manufacture modules and shaped modules of corresponding specifications for customers based on the kiln type and specifications, and we can also produce modules of various specifications based on customer-provided drawings.

CCEWOOL® Ceramic Fiber Module

CHARACTERISTICS

Excellent chemical stability and thermal stability;
Low thermal conductivity, low thermal capacity;
Supporting both soldiers-march-based arrangement and assembly-based arrangement with the help of anchor in various forms in the back of the module;
Module will squeeze with each another in different directions after unbinding, to produce no gap;
Elastic fiber blanket resists to external mechanical forces;
Fiber blanket's elasticity can compensate for the deformation of furnace shell, so that no gap is generated between modules;
Light weight, and absorbing less heat as insulation materials;
Low thermal conductivity brings strong energy-saving effects;
Able to withstand any thermal shock;
Lining need no drying or curing, ready to use immediately after installation;
Anchoring system is far away from hot surface of component, to allow metal anchor member to be in a relatively low temperature.

APPLICATIONS

All kinds of industrial furnace and heating device linings for metallurgy, machinery;
construction materials, petrochemicals, non-ferrous metal industries;
Low mass kiln cars;
Roller hearth furnace linings;
Gas Turbine exhaust ducts;
Duct linings;
Furnace hearths;
Boiler insulation;
Furnace lining insulation for high-temperature applications.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Module

Item	1100	1260S	1260HPS	1400	1430HZ
Operation Temp	950°C(1742°F)	1050°C(1922°F)	1100°C(2012°F)	1200°C(2192°F)	1350°C(2462°F)
Density	160-220 kg/m ³				
Linear Shrinkage EN1094-1 (%)					
@950°C, 24hrs	1.5	-	-	-	-
@1000°C, 24hrs	2	1.5	1.5	-	-
@1100°C, 24hrs	3	2.5	2	1.5	-
@1200°C, 24hrs	-	3	3	2	1
@1300°C, 24hrs	-	-	-	3	2
@1400°C, 24hrs	-	-	-	-	3
Tensile Strength (Mpa)					
Density-64kg/m ³	0.039	0.039	0.039	0.039	0.039
Density-96kg/m ³	0.078	0.078	0.078	0.078	0.078
Density-128kg/m ³	0.103	0.103	0.103	0.103	0.103
Density-160kg/m ³	0.127	0.127	0.127	0.127	0.127
Thermal Conductivity W/(m·k)					
128kg/m ³ -1000°C	0.45	0.43	0.4	0.35	0.3
Chemical Composition (%)					
Al ₂ O ₃	≥43	≥44	≥44	≥52	≥35
SiO ₂	≥52	≥52	≥55	≥47	≥49
ZrO ₂	-	-	-	-	≥15
Al ₂ O ₃ +SiO ₂ +ZrO ₂	-	-	-	-	≥99
Fe ₂ O ₃	≤1.0	≤0.8	≤0.2	≤0.2	≤0.2
Na ₂ O+K ₂ O	≤0.4	≤0.3	≤0.2	≤0.2	≤0.2
CaO+MgO	≤0.3	≤0.1	≤0.1	≤0.1	≤0.1
Specification (mm)					
	L*W: 300*300;450*300;600*300				
	H: 100;150;200;250;300				
Package	Carton Box or Pallet				

1260°C



CCEWOOL®
Ceramic Fiber Bulk

CCEWOOL® ceramic fiber bulk is made from the high purity chamotte, alumina powder, Cab-O-Sil, zircon materials melted through high temperature resistance furnace. Then adopting compressed air blowing or spun machine to spun into fibers, through condenser to set cotton to form ceramic fiber bulk. Ceramic fiber bulks are typically used in the manufacture of other ceramic fiber based product forms such as fiber blanket, board, paper, cloth, rope and other products. Ceramic fiber is an efficient insulation material with characteristics like light weight, high strength, antioxidants, low thermal conductivity, good flexibility, corrosion resistance, small heat capacity and sound-proof. Temperature varies from 1100°C to 1430°C.

CCEWOOL® Ceramic Bulk Fiber



CCEWOOL® Ceramic Bulk Fiber is produced by melting high-purity raw materials such as clay grog, aluminum oxide powder, silica powder, and zircon sand in an industrial electric furnace at high temperatures to form a fluid. Then, it is transformed into fiber-like structures through processes like compressed air blowing or spinning with a centrifuge, and collected to create ceramic fiber cotton. CCEWOOL® Ceramic Bulk Fiber can resist most types of chemical corrosion. They are lightweight, durable, have low heat storage capacity, effectively save energy, and exhibit excellent resistance to thermal shocks, making them suitable for use in harsh environments.

CCEWOOL® Ceramic Bulk Fiber serves as a raw material for the production of refractory ceramic fiber blankets, boards, papers, and can also be directly used in various high-temperature applications such as high-temperature insulation and packaging materials.

CHARACTERISTICS

- Low heat capacity and low thermal conductivity;
- Excellent chemical stability;
- Excellent thermal stability, resistance to pulverization at high temperature;
- With no binders or corrosive substances;
- Excellent thermal shock resistance;
- Lightweight.

APPLICATIONS

- Raw material for fiber blanket, board, textile and unshaped vacuum formed products;
- Fillings for wall lining gap in high temperature furnace, heating device;
- Fiber spraying;
- Raw material for coatings;
- Insulation fillings for corner and complex space.

TECHNICAL DATA

CCEWOOL® Ceramic Bulk Fiber					
Description	1100	1260S	1260 HPS	1400	1430 HZ
Fiber Diameter(μm)	3.0-5.0				
Chemical Composition (%)					
Al ₂ O ₃	≥43	≥44	≥44	≥52	≥35
SiO ₂	≥52	≥52	≥55	≥47	≥49
ZrO ₂	-	-	-	-	≥15
Color	White	White	White	White	White
Shot Content(%)	≤15	≤15	≤15	≤15	≤12
Packing	Braided Bag/ Carton				

CCEWOOL® Ceramic Chopped Fiber



CCEWOOL® Ceramic Chopped Fiber is made by crushing CCEWOOL refractory ceramic fiber bulk through professional automatic crusher. Chopped fiber bulk is raw material for producing refractory ceramic fiber board and refractory ceramic fiber paper. With automated operation system, we can produce more uniform chopped fiber and the particle size of chopped fiber can be more accurate. We can make chopped refractory ceramic fiber of different particle sizes according to customers' requirements. CCEWOOL® Ceramic Chopped Fiber is widely used as thermal insulation materials in industrial kilns, boilers, pipes, chimneys, etc, and its thermal insulation effect is remarkable.

CHARACTERISTICS

- Low heat capacity and low thermal conductivity;
- Excellent chemical stability;
- Excellent thermal stability, resistance to pulverization at high temperature;
- With no binders or corrosive substances;
- Excellent sound absorption.

APPLICATIONS

- Raw material for fiber blanket, board, textile and unshaped vacuum formed products;
- Expansion joints;
- Furnace base seals;
- Tube seals;
- Burner tile packing;
- Chimney insulation.

TECHNICAL DATA

CCEWOOL® Ceramic Chopped Fiber	
Classification Temperature (°C)	1260
Fiber Diameter(μm)	2-4
Chemical Composition(%)	
Al ₂ O ₃	≥43
SiO ₂	≥54
ZrO ₂	-
Color	White
Shot Content(%)	≤12
Packing	Braided Bag/ Vacuumed plastic bag+pallet

CCEWOOL® Ceramic Fiber bulk specialized for vacuum formed shapes



CCEWOOL® Ceramic Fiber bulk specialized for vacuum formed shapes is produced with high-purity clay clinker, alumina powder, silica powder, and zircon sand and other premium raw materials, through innovative production process. The raw materials are melted at high temperatures in an industrial electric furnace, then processed into fiber through compressed air blowing technology. Then the fiber is collected by a wool collector, and forms high-quality refractory ceramic fiber blown bulk. This specialized fiber bulk has a fiber diameter of 2-4μm. It's unlubricated, making it the best product for manufacturing vacuum formed shapes. We also produce bio soluble fiber(AES fiber) for vacuum formed shape, to meet different application requirements.

CCEWOOL® Ceramic Fiber bulk specialized for vacuum formed shapes is packed with vacuumed plastic bags and then packed securely on pallets. This packaging method not only protects product from damage but also greatly saves space. Reach Registration Certificate will be provided as requested for each shipment.

CHARACTERISTICS

- Unlubricated;
- Low heat capacity and low thermal conductivity;
- Excellent chemical stability;
- Superior thermal stability, resistant to powdering at high temperatures.

APPLICATIONS

The best product for making vacuumed formed shapes.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber bulk specialized for vacuum formed shapes			
Classification Temperature		1260°C (2300°F)	1430°C(2600°F)
Color		White	White
Fiber Diameter (μm)		2-4	2-4
Shot Content (%)		≤15	≤12
Chemical Composition (%)	Al ₂ O ₃	≥43	≥35
	SiO ₂	≥54	≥49
	ZrO ₂	-	≥15
	Al ₂ O ₃ +SiO ₂ +ZrO ₂	-	≥99
Packing		Vacuumed plastic bag+pallet.	

CCEWOOL® Ceramic Fiber Bulk for Textile



CCEWOOL® Ceramic Fiber Bulk for Textile is made from standard refractory ceramic fiber bulk through a further shot-removal process to deliver uniform diameter and high spinnability of fiber cotton, which is one of ideal raw material for the production of textiles.

CHARACTERISTICS

Low heat capacity and low thermal conductivity;
Excellent chemical stability;
Excellent thermal stability, resistance to pulverization at high temperature;
With no binders or corrosive substances;
Excellent sound absorption.

APPLICATIONS

Raw material of refractory ceramic fiber textile(yarn, cloth, tape, rope)

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Bulk for Textile	
Classification Temperature (°C)	1260
Fiber Diameter (μm)	3-5
Chemical Composition (%)	
Al ₂ O ₃	≥43
SiO ₂	≥54
ZrO ₂	-
Color	White
Shot Content (%)	≤15
Packing	Braided Bag/ Carton

CCEWOOL® Ceramic Fiber Friction Bulk



CCEWOOL® Ceramic Fiber Friction Bulk is a combination of refractory ceramic fibers and binding agents, which are designed to improve its characteristics. This type of friction material is manufactured by blending refractory ceramic fibers with organic and inorganic binders. The production process involves mixing, molding, forming, curing, and sintering.

The final result is a material that is capable of withstanding extremely high temperatures and pressure without losing its functionality. It is used extensively in brake systems, clutches, and other friction applications due to its excellent frictional performance, wear resistance, and low dust emissions.

CHARACTERISTICS

1. High heat resistance: Refractory ceramic fiber friction materials can withstand temperatures up to 1200°C, making it an ideal material for use in high-temperature applications.
2. Low wear rates: This material has excellent wear resistance, which makes it highly suitable for use in applications that require long-lasting and durable materials.
3. Low noise: Refractory ceramic fiber friction material is virtually silent during operation, making it an ideal choice for reducing noise and vibration levels.
4. Low dust emissions: These materials are designed to generate low levels of dust during operation, reducing exposure to harmful particles.
5. High chemical resistance: Refractory ceramic fiber friction material is highly resistant to chemical corrosion, ensuring that it can work effectively in harsh environments.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Friction Bulk	
Classification Temperature (°C)	1260
Operation Temp(°C)	≥1000
Fiber Diameter(μm)	2-4
Chemical Composition(%)	
Al ₂ O ₃	≥45
SiO ₂ +Al ₂ O ₃	≥97
ZrO ₂	-
Color	white or grayish-white
Shot Content(%)	≤3
Packing	Braided Bag

APPLICATIONS

1. Automotive brakes: Refractory ceramic fiber friction material is widely used in automotive brake systems due to its excellent performance and durability. It offers smoother operation, lower noise levels, and reduced wear and tear compared to other friction materials.
2. Industrial clutches: These materials are highly preferred in industrial clutch applications due to their high resistance to heat and wear. They offer excellent frictional performance, reducing slippage during high-demand operations.
3. Construction machinery: Refractory ceramic fiber friction material is widely used in construction machinery such as cranes and excavators because they can withstand high loads and stresses.



CCEWOOL® Ceramic Fiber Textile

CCEWOOL® ceramic fiber textile includes ceramic fiber yarn, cloth, tape and rope. Using ceramic fiber bulk as raw material and made from ceramic fiber strand, CCEWOOL® ceramic fiber textile offers excellent insulation property.

Temperature degree: 1260°C (2300°F)

CCEWOOL® Ceramic Fiber Yarn



CCEWOOL® Ceramic Fiber Yarn is made through a special process using refractory ceramic fiber cotton, non-alkali glass filament, and high-temperature-resistant stainless steel alloy wire. It is used for the installation of insulation materials and heat conduction systems and is also widely used in the production of other refractory ceramic fiber textiles. Products made from CCEWOOL® Ceramic Fiber Yarn are sturdy, chemically stable, and have excellent insulation qualities.

CHARACTERISTICS

- Excellent high-temperature strength;
- Excellent electrical insulating properties;
- Excellent resistance to acid, oil, water vapor corrosion;
- Low thermal conductivity;
- Excellent thermal insulation.

APPLICATIONS

Stitching fireproof cloth/tape/rope.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Yarn		
Classification Temperature (°C)	1260 (2300°F)	
Name	Glass Filament Reinforced Yarn	Inconel Wire Reinforced Yarn
Density (kg/m ³)	550	
Long-term Operation Temp (°C)	550	1050
Water Content(%)	≤2	
Organic Content (%)	≤15	
Shrinkage at 982°C (%)	-1%	
Packing of ceramic fiber yarn	Braided Bag/ Carton	

CCEWOOL® Ceramic Fiber Cloth



CCEWOOL® Ceramic Fiber Cloth is woven from high-quality refractory ceramic fiber yarn and is a high-performance industrial-grade refractory ceramic fiber fabric suitable for high-temperature applications. It is lightweight, flexible, and available in various thicknesses, widths, and densities. CCEWOOL® Ceramic Fiber Cloth contains a certain amount of organic fibers, which gradually carbonize and turn black when heated, without affecting its normal insulation performance. As the temperature continues to rise, the product will gradually turn white again as the organic fibers are completely carbonized.

CCEWOOL® Ceramic Fiber Cloth is available in two variations, reinforced with either nickel-chromium alloy wire or glass filament, and it has excellent wear resistance and resistance to mechanical damage, maintaining high strength at high temperatures. CCEWOOL® Ceramic Fiber Cloth is easy to manufacture, has low shrinkage, and remains flexible even after exposure to high temperatures.

CHARACTERISTICS

- Low thermal conductivity;
- Excellent thermal shock resistance, thermal stability;
- Excellent tensile strength;
- Sound insulation;
- Easy cut and easy stall;
- Containing no asbestos;
- Chemical corrosion resistance.

APPLICATIONS

- Gasket and wrapping material;
- Induction heating furnace coil insulation;
- Cable and wire insulation (thermal and/or electrical);
- Infrared radiating diffusers;
- Boiler tadpole gaskets;
- Fuel line insulation;
- Furnace heat zone separators;
- Exhaust hood curtains;
- Pipe hanger insulation.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Cloth		
Classification Temperature (°C)	1260 (2300°F)	
Name	Glass Filament Reinforced Cloth	Inconel Wire Reinforced Cloth
Density (kg/m ³)	550	
Long-term Operation Temp	550	1050
Water Content (%)	≤2	
Organic Content (%)	≤15	
Shrinkage at 982°C (%)	-1	
Packing of ceramic rope	Braided Bag/ Carton	
Specification (T x W x L)	2mm x 1m x 30m	
	3mm x 1m x 30m	
	5mm x 1m x 20m	
	6mm x 1m x 20m	

CCEWOOL® Ceramic Fiber Tape



CCEWOOL® Ceramic Fiber Tape is made from high-quality refractory ceramic fiber yarn, reinforced with either glass filament or stainless steel wire. It possesses excellent chemical stability, outstanding resistance to thermal shock, corrosion resistance, and resistance to damage caused by mechanical vibrations and stress. It is highly suitable for industrial applications that require sturdy, flexible, and high-temperature-resistant materials. CCEWOOL® Ceramic Fiber Tape is used in various thermal equipment and heat conduction systems for fire resistance, insulation, and friction applications.

CHARACTERISTICS

- Low thermal conductivity;
- Excellent thermal shock resistance, thermal stability;
- Excellent tensile strength;
- Sound insulation;
- Easy cut and easy stall;
- Containing no asbestos;
- Chemical corrosion resistance.

APPLICATIONS

- Industrial thermal insulation, pipe and cable insulation coating, exhaust piping insulation coating, bolt flange connection, thermal radiation shielding, high temperature furnace door curtain.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Tape

Classification Temperature (°C)	1260 (2300°F)	
Name	Glass Filament Reinforced Tape	Inconel Wire Reinforced Tape
Density (kg/m ³)	550	
Long-term Operation Temp	550°C	1050°C
Water Content (%)	≤2	
Organic Content (%)	≤15	
Shrinkage at 982°C (%)	-1	
Packing of ceramic tape	Braided Bag/ Carton	
Specification (T x W x L)	2mm x 20mm x 30m	
	3mm x 20mm x 30m	
	2mm x 30mm x 30m	
	3mm x 30mm x 30m	
	2mm x 40mm x 30m	
	3mm x 40mm x 30m	
	2mm x 50mm x 30m	
	3mm x 50mm x 30m	
	2mm x 60 mm x 30m	
	3mm x 60 mm x 30m	
	2mm x 75 mm x 30m	
	3mm x 75 mm x 30m	
	2mm x 80 mm x 30m	
	3mm x 80 mm x 30m	
	2mm x 100 mm x 30m	
3mm x 100 mm x 30m		
2mm x 150 mm x 30m		
3mm x 150 mm x 30m		

CCEWOOL® Ceramic Fiber Rope



CHARACTERISTICS

Low thermal conductivity;
 Excellent thermal shock resistance, thermal stability;
 Excellent tensile strength;
 Sound insulation;
 Easy cut and easy stall;
 Containing no asbestos;
 Chemical corrosion resistance.

APPLICATIONS

Furnace doors insulation and seals;
 Expansion joint filling in furnace and boiler;
 Coke oven door seals;
 High temperature gasket and packing;
 Radiant tube packing heat treatment furnace;
 Packed between steel bar and tube to avoid leakage of melting liquid.

TECHNICAL DATA

CCEWOOL® Ceramic Fiber Rope

Classification Temperature (°C)	1260 (2300°F)	
Name	Glass Filament Reinforced Rope	Inconel Wire Reinforced Rope
Density (kg/m ³)	550	
Long-term Operation Temp	550	1050
Water Content	≤2	
Organic Content (%)	≤15	
Shrinkage at 982°C (%)	-1	
Size (diameter) (mm)	6-120	
Packing of ceramic rope	Braided Bag/ Carton	

CCEWOOL® Ceramic Fiber Rope is a series of dense and resilient refractory ceramic fiber materials made from high-quality refractory ceramic fiber cotton as raw material, combined with lightweight yarn and woven through a special process. Depending on different temperature requirements and applications, it may include reinforced materials like glass filament or heat-resistant alloy steel wire. It is widely used in various high-temperature gasket, packing, and sealing applications, particularly suitable for high-temperature and high-pressure mechanical sealing in pumps and valves. CCEWOOL® Ceramic Fiber Rope boasts excellent chemical stability, with the ability to resist most corrosive agents, as well as oxidation and reduction. Even if it gets wet with water or steam, its thermal and physical properties fully recover after drying.



CCEWOOL® Ceramic Fiber Shapes

CCEWOOL® Ceramic Fiber Shapes is made from high quality refractory ceramic fiber bulk as raw material, through vacuum forming process. This product is developed into unshaped product with both superior high-temperature rigidity and self-supporting strength. We produce CCEWOOL® Unshaped Vacuum Formed Ceramic Fiber to fit for the demand for some specific industrial sector production processes. Depending on performance requirements of the unshaped products, different binders and additives are used in production process. All unshaped products are subject to relatively low shrinkage in their temperature ranges, and maintain a high thermal insulation, lightweight and shock resistance. The non-burnt material can easily be cut or machined. During use, this product shows excellent resistance to abrasion and stripping, and can not be wetted by most molten metals.

CCEWOOL® Ceramic Fiber Shapes



CHARACTERISTICS

- Can be made into various of complex shapes, high dimension accuracy;
- Contact with flame directly, no odor and volatile gases at high temperatures;
- High mechanical strength, resistance to gas flow;
- Low shrinkage, low thermal conductivity;
- Excellent strength in high temperature and thermal stability.

APPLICATIONS

- Industrial kilns observation hole, thermometer hole;
- Industrial furnace burner brick;
- Industrial furnace door;
- Sump and launder for aluminum products industry;
- Heat insulation for thermal radiation in civil and industrial heating device;
- Nozzle and door sealing for the industrial furnace;
- Non-ferrous metal molten channel;
- Lining for pad, cap, of found, electrical equipment connect gaskets.

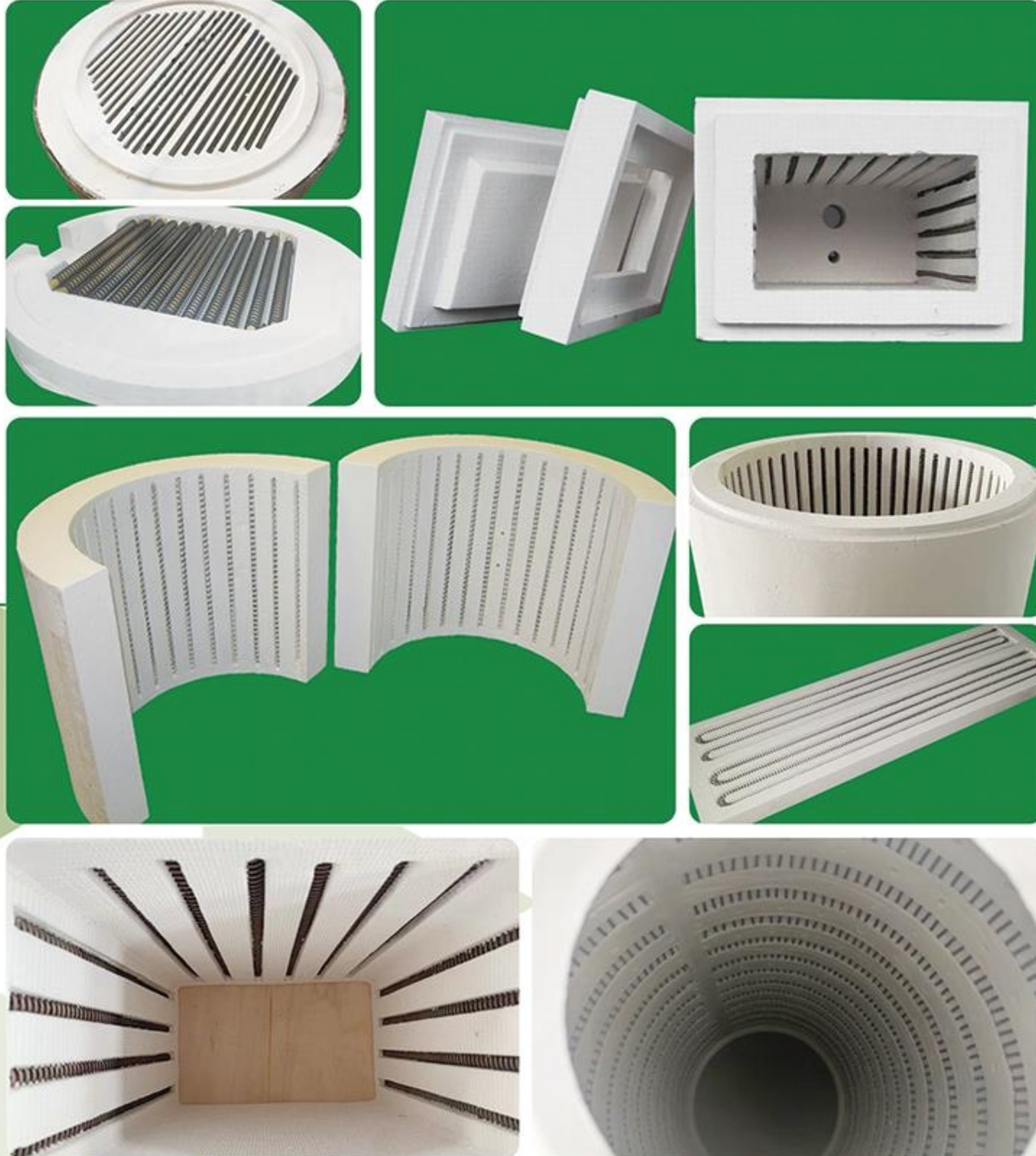
TECHNICAL DATA

CCEWOOL® Ceramic Fiber Shapes

	1260S	1260HPS	1400	1430HZ
fireproof chimney pipe insulation	280-400	280-400	280-400	280-400
Density(KG/m ³)	≤1.5	≤1.5	≤1.5	≤1.5
320kg/m ³ /at(°C/24h)	-1000	-1000	-1100	-1200
Linear Shrinkage Rate(%)	≥0.6	≥0.6	≥0.6	≥0.6
Flexural strength(mpa)	0.08	0.08	-	-
Thermal Conductivity Rate(W/m.k)	400°C	0.15	0.14	0.12
	600°C	0.2	0.18	0.16
	800°C	-	-	0.21
	1000°C	-	-	0.19
Chemical Composition (%)	Al ₂ O ₃	44-46	47-49	52-55
	Al ₂ O ₃ +SiO ₂	≥99.0	≥99.0	≥99.0
	ZrO ₃	-	-	-
	Other	≤1.0	≤1.0	≤1.0

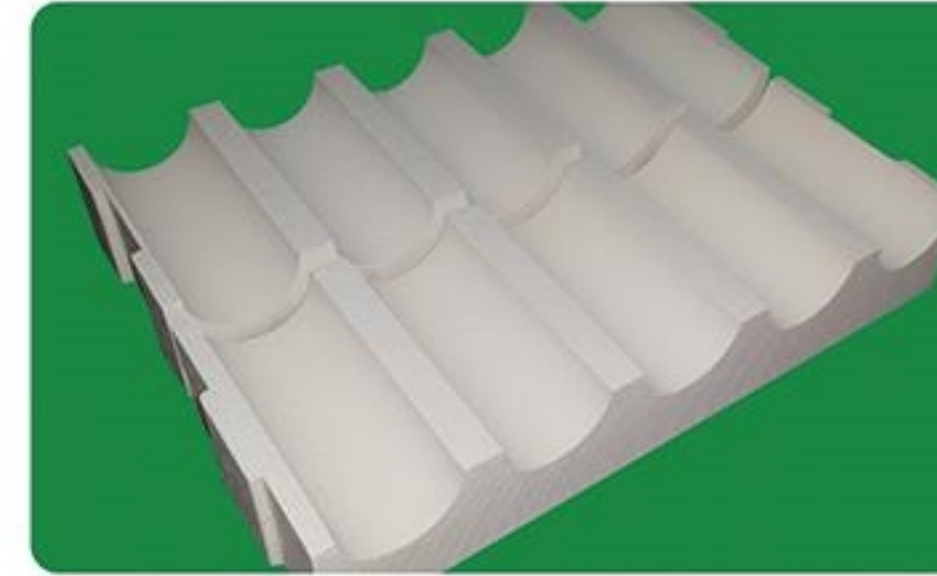
CCEWOOL® Vacuum Formed Refractory Fiber Resistant Wire Shapes

We specially customize the resistant wire shapes according to customer needs and customize the installation of resistant wire products. Whether it's specifications, sizes, or the arrangement of resistant wires, everything can be tailored to meet your specific temperature range and application requirements. CCEWOOL® vacuum formed refractory fiber resistant wire shapes not only offer standard ceramic fiber materials but also provide polysilicon fiber resistant wire shapes for customers seeking higher temperature resistance, up to 1600°C. Whether in high temperatures or extreme environments, our products guarantee excellent heat resistance, stability, and energy efficiency.



Ceramic Fiber Roller Kiln Insulation Brick

Industry: Glass Deep Processing, Glass Tempering Furnace
Application: Sealing and Insulation of the Upper and Lower Furnace Body Quartz Roller Path



Ceramic Fiber Sleeves



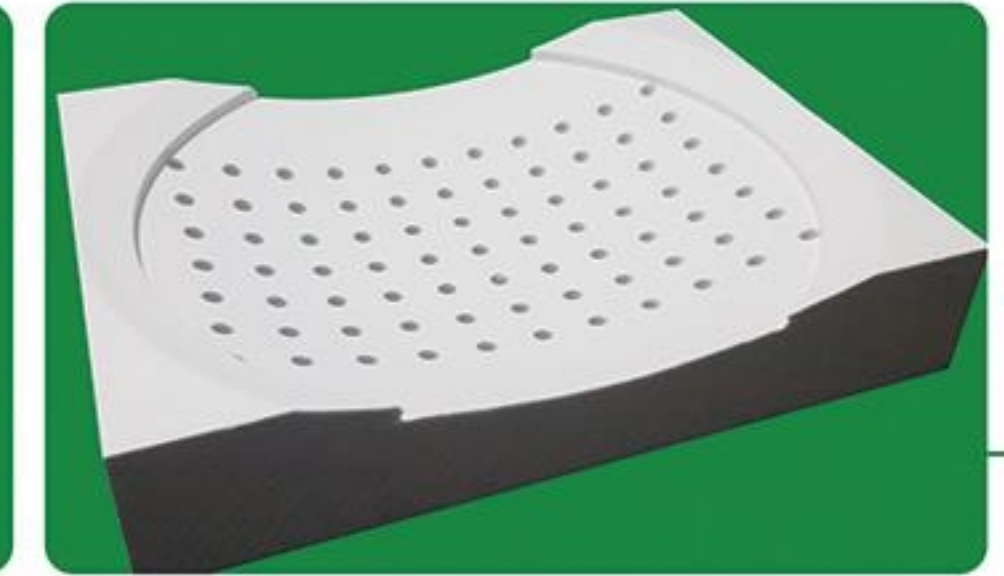
Molten Iron Sampling Spoon

Industry: Steel Metallurgy
Application: Sampling of Molten Iron



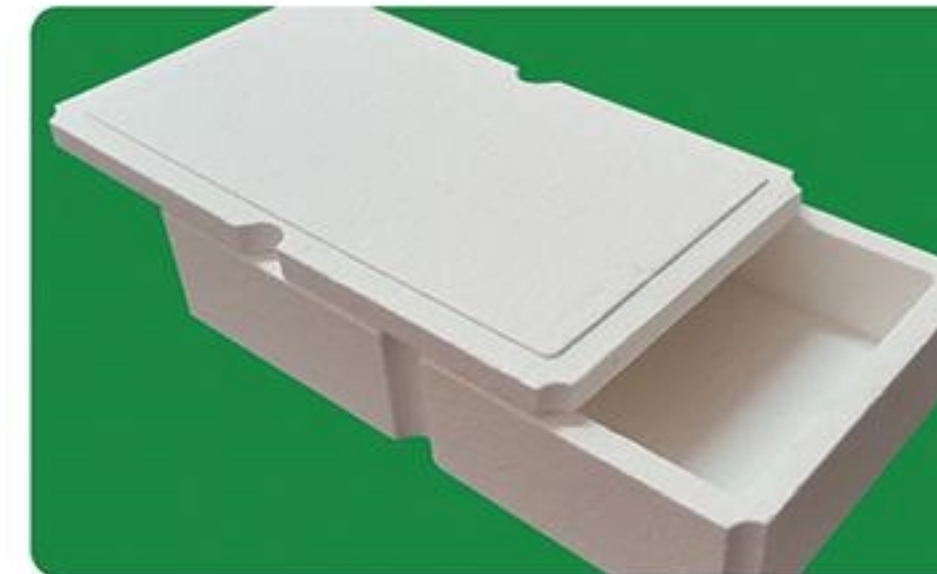
Ceramic Fiber Shapes

Industry: Hot-Bent Glass, Automotive Rearview Mirror Glass
Application: Mold Insulation Bricks



Ceramic Fiber Insulation Box

Industry: Aerospace
Application: Black Box Fireproof Insulation



Ceramic Fiber End Port

Industry: Tubular Heating Furnace
Application: Sealing and Insulation at Both Ends





Low Biopersistent Fiber



The classification temperature for CCEWOOL® Low Biopersistent Fibers ranges from 1200°C (2192°F) to 1300°C (2372°F).

CCEWOOL® Low Biopersistent Fibers are made primarily from alkali earth silicate (combining silicate materials with calcium carbonate, magnesium oxide, and other alkali earth metal oxides). These alkali earth silicates are produced through high-temperature melting to create amorphous fibers with bio-solubility, mainly composed of calcium oxide (26-32%), magnesium oxide (4-7%), and silicon dioxide (over 62-70%). Due to their good solubility in bodily fluids and biodegradability, these components are of interest for their harmlessness to human health and the environment. This feature fully complies with the requirements of the Global Harmonized System (GHS), and under this international standard, our products do not require any additional carcinogenic substance warning labels.

CCEWOOL® Low Biopersistent Fibers have also passed the solubility tests of the German Fraunhofer Laboratory. This certification not only confirms their biodegradability and safety but also reflects our commitment to health and safety standards. Furthermore, Low Biopersistent Fibers have been classified by the International Agency for Research on Cancer (IARC) as non-carcinogenic substances.

CCEWOOL® Low Biopersistent Fibers possess excellent thermal insulation properties and are resistant to chemical corrosion.

In certain applications, CCEWOOL® Low Biopersistent Fibers can replace ceramic fibers.

The advantages of CCEWOOL® Low Biopersistent Fibers include:

Compared to some ceramic fiber materials, they have a lower thermal conductivity, enhancing insulation performance by 20%.

Lower slag ball content and lighter weight compared to ceramic fibers, with a higher fiber content.

CCEWOOL® Low Biopersistent Fibers have a lower density grade, which can replace ceramic fiber products, reducing material weight by up to 25%.

CCEWOOL® Low Biopersistent Fiber Blanket LT



CCEWOOL® Low Biopersistent Fiber Blanket LT 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 LT 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 steam, its thermal and physical properties are not compromised. It's certified by Fraunhofer laboratory.

CHARACTERISTICS

- Low thermal conductivity;
- Low thermal storage;
- High tensile strength;
- Thermal shock resistance;
- Lightweight;
- Excellent corrosion resistance.

APPLICATIONS

- 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.

TECHNICAL DATA

CCEWOOL® Low Biopersistent Fiber Blanket LT

Classification Temperature (°C)(°F)	1200°C(2192°F)				
Chemical Composition (%)					
SiO ₂	65–68				
CaO	27–33				
MgO	2–7				
CaO+MgO	–				
Color	Light Bluish				
Shot Content (%)	≤12				
Density (kg/m ³)(4lb/ft ³)	96(6lb/ft ³)	128(8lb/ft ³)			
Tensile Strength (kPa)	55	75			
Permanent Linear Shrinkage (%)	1200°C x 24h ≤2.8				
Thermal Conductivity (W/m·K)					
200°C	0.05	0.04			
400°C	0.09	0.08			
600°C	0.19	0.15			
800°C	0.3	0.2			
1000°C	0.48	0.28			
1200°C	0.69	0.49			
Thickness	Density kg/m³			Length	Width
mm	96	128	160	mm	mm
13	√	√	○	14640	610, 1220
19	√	√	○	9760	
25	√	√	√	7320	
38	√	√	√	4880	
50	√	√	-	3660	

Note: (√) is standard size, Custom size are available

CCEWOOL® Low Biopersistent Fiber Blanket LT Pro



CCEWOOL® Low Biopersistent Fiber Blanket LT Pro is the latest development in soluble fiber blankets, manufactured using proprietary fiberization technology, offering a classification temperature of 1300°C with a long-term usage temperature of up to 1200°C. CCEWOOL® Low Biopersistent Fiber Blanket LT Pro has a slag content of less than 5%, and compared to traditional soluble fiber blankets, it has a fiber content exceeding 30%, resulting in lower thermal conductivity and superior tensile strength. It exhibits outstanding chemical stability and is unaffected by most chemicals except for hydrofluoric acid, phosphoric acid, and concentrated alkalis. It is an energy-saving solution that enhances application efficiency and reduces emissions. It's certified by Fraunhofer laboratory.

CCEWOOL® Low Biopersistent Fiber Blanket

CHARACTERISTICS

- Slag ball content less than 5%, extremely low thermal conductivity;
- Fiber content exceeding 30%;
- Low heat storage;
- High tensile strength;
- Excellent thermal shock resistance;
- Lightweight;
- Outstanding corrosion resistance.

APPLICATIONS

- High-temperature furnace and kiln linings;
- Furnace door linings and seals;
- Boiler insulations;
- Pipe and duct insulation;
- Heat shields;
- Seals and gaskets;
- Carbon baking furnace covers;
- Glass tank crown insulation;
- Expansion joints.

TECHNICAL DATA

CCEWOOL® Low Biopersistent Fiber Blanket LT Pro					
Classification Temperature (°C)(°F)	1300°C(2372°F)				
Chemical Composition (%)					
SiO ₂	≥70				
CaO	-				
MgO	-				
CaO+MgO	≥20				
Color	Light Bluish				
Shot Content (%)	≤12				
Density (kg/m ³)(4lb/ft ³)	96(6lb/ft ³)	128(8lb/ft ³)			
Tensile Strength (kPa)	55	75			
Permanent Linear Shrinkage (%)	1300°C x 24h ≤3.0				
Thermal Conductivity (W/m·K)					
200°C	0.05	0.04			
400°C	0.1	0.08			
600°C	0.18	0.14			
800°C	0.3	0.22			
1000°C	0.46	0.33			
1200°C	0.68	0.46			
Thickness	Density kg/m ³			Length	Width
mm	96	128	160	mm	mm
13	√	√	○	14640	610, 1220
19	√	√	○	9760	
25	√	√	√	7320	
38	√	√	√	4880	
50	√	√	-	3660	

Note: (√) is standard size, Custom size are available

CCEWOOL® Low Biopersistent Fiber Blanket



CCEWOOL® Low Biopersistent Fiber Wrap



CCEWOOL® Low Biopersistent Fiber Wrap is a soluble fiber aluminum foil blanket mainly used in construction for fire-resistant insulation in areas such as fire protection ducts, exhaust pipes, and chimneys. It utilizes European standard aluminum foil with thin foil thickness and one-time bonding without the use of adhesives, ensuring it doesn't easily delaminate and maintains excellent adhesion between CCEWOOL soluble fiber blankets and aluminum foil. This product is known for its easy installation and durability.

CCEWOOL® Low Biopersistent Fiber Wrap exhibits outstanding chemical stability and is unaffected by most chemicals except hydrofluoric acid, phosphoric acid, and concentrated alkalis. If it becomes wet with water or steam, its thermal and physical performance remains unaffected after drying. It's certified by Fraunhofer Laboratory.

CCEWOOL® Low Biopersistent Fiber Blanket

CHARACTERISTICS

- Lightweight and flexible product form;
- Aluminum foil encapsulation;
- Easy to cut, manufacture, wrap around pipes or cables;
- Thin and single-layer design;
- High-temperature resistance, biodegradable fibers.

APPLICATIONS

Residential:
 Household appliances
 Self-cleaning ovens
 High-temperature commercial cooking equipment;

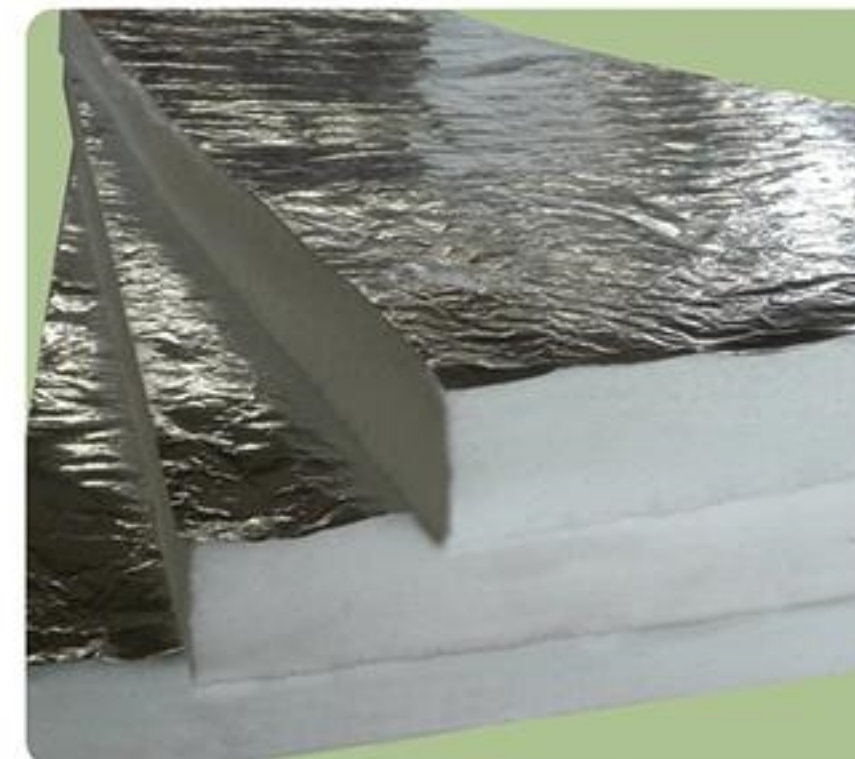
Industrial:
 Chimney liners for thermal insulation
 Heat shields;

Commercial Buildings:
 Prefabricated grease exhaust ducts
 Pre-insulated grease pipe maintenance doors
 Expansion joint seals
 Weld-through firestop packaging.

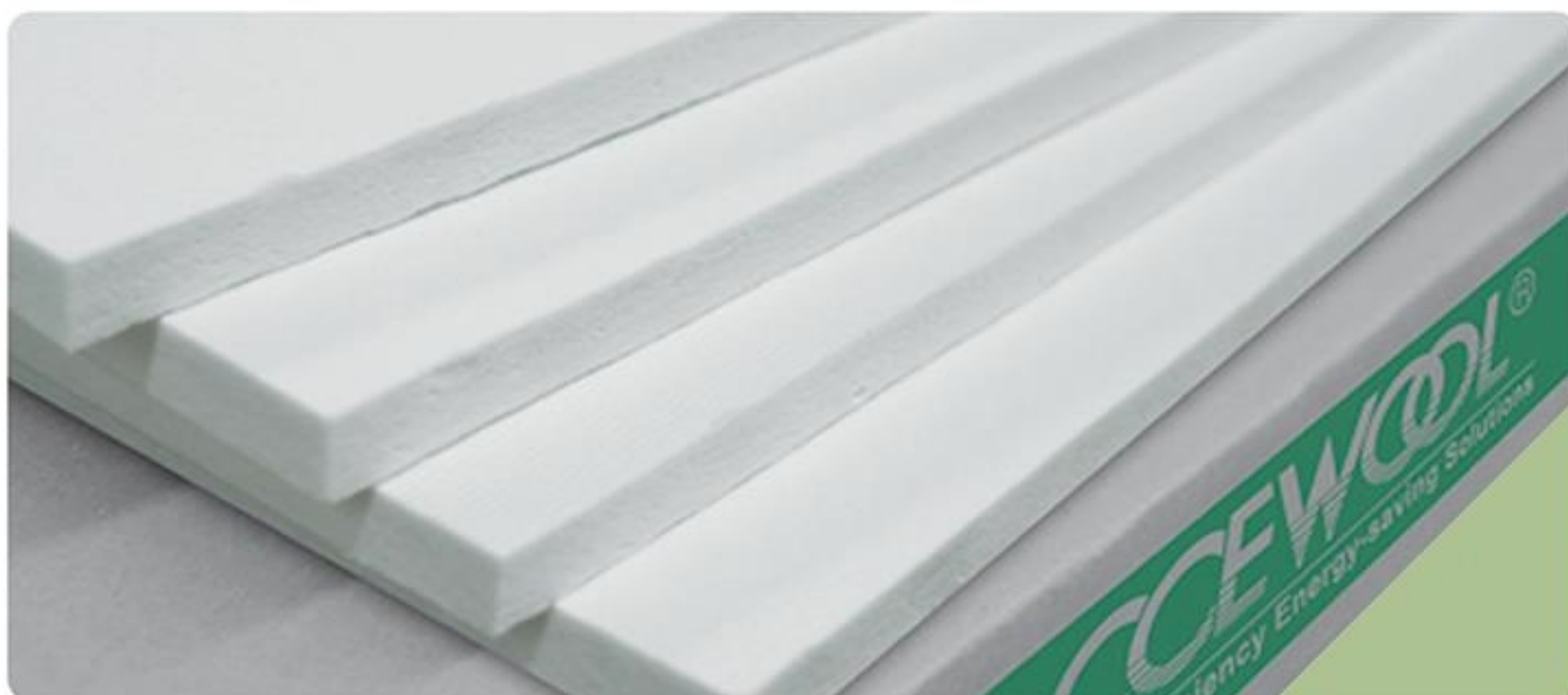
TECHNICAL DATA

CCEWOOL® Low Biopersistent Fiber Wrap				
Classification Temperature (°C)(°F)	1200°C(2192°F)		1300°C(2372°F)	
Aluminum foil thickness (mm)	0.12			
Chemical Composition (%)				
SiO2	65-68		≥70	
CaO	27-33		-	
MgO	2-7		-	
CaO+MgO	-		≥20	
Color	Light Bluish		Light Bluish	
Shot Content (%)	≤12		≤12	
Density (kg/m³)(lb/ft³)	96	128	96	128
	(6lb/ft³)	(8lb/ft³)	(6lb/ft³)	(8lb/ft³)
Tensile Strength (kPa)	55	75	55	75
Permanent Linear Shrinkage (%)	1200°C x 24h ≤2.8		1300°C x 24h ≤3.0	
Thermal Conductivity (W/m·K)				
200°C	0.05	0.04	0.05	0.04
400°C	0.09	0.08	0.1	0.08
600°C	0.19	0.15	0.18	0.14
800°C	0.3	0.2	0.3	0.22
1000°C	0.48	0.28	0.46	0.33
1200°C	0.69	0.49	0.68	0.46

CCEWOOL® Low Biopersistent Fiber Blanket



CCEWOOL® Low Biopersistent Fiber Board LT



CCEWOOL® Low Biopersistent Fiber Board LT 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 Board LT 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.

TECHNICAL DATA

CCEWOOL® Low Biopersistent Fiber Board LT	
Classification Temperature (°C)	1200°C(2192°F)
Color	Light Bluish
Density (kg/m ³)	300
Modules of Rupture (MPa)	≥0.25
Compressive Strength (MPa, 10% relative deformation)	0.15
Loss of Ignition (%)	≤7
Permanent Linear Shrinkage (%)	1100°C x 24h ≤2.0
Thermal Conductivity (W/m·K)	
200°C	0.05
400°C	0.08
600°C	0.1
800°C	0.12
1000°C	0.14

CHARACTERISTICS

Low thermal conductivity;
 Low thermal storage;
 High tensile strength;
 Thermal shock resistance;
 Lightweight;
 Excellent corrosion resistance.

APPLICATIONS

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.

CCEWOOL® Low Biopersistent Fiber Board LT Pro



CCEWOOL® Low Biopersistent Fiber Board LT Pro is the latest development in soluble fiber products, made from a blend of soluble fiber cotton, organic, and inorganic binders, forming a hard board. In use, CCEWOOL® Low Biopersistent Fiber Board LT Pro maintains high compressive strength and low thermal conductivity, with physical properties remaining stable. It can withstand temperatures up to 1300°C (2372°F), providing stability to the entire refractory lining system. CCEWOOL® Low Biopersistent Fiber Board LT Pro exhibits excellent chemical stability and can resist attack from most acids and corrosive agents, except hydrofluoric acid, phosphoric acid, and concentrated alkalis.

TECHNICAL DATA

CCEWOOL® Low Biopersistent Fiber Board LT Pro	
Classification Temperature (°C)	1300°C(2372°F)
Color	Light Bluish
Density (kg/m ³)	300
Modules of Rupture (MPa)	≥0.25
Compressive Strength (MPa)	0.15
Loss of Ignition (%)	≤7
Permanent Linear Shrinkage (%)	1260°C x 24h ≤2.0
Thermal Conductivity (W/m·K)	
200°C	0.05
400°C	0.07
600°C	0.1
800°C	0.11
1000°C	0.14

CHARACTERISTICS

High temperature stability;
 Low thermal conductivity;
 Resistance to thermal shock;
 Good handling strength;
 Easy to cut with standard tools.

APPLICATIONS

Hot gas duct linings;
 Rigid high temperature gaskets and seals;
 Heat shields;
 Shapes for domestic appliances;
 Molten metal transfer systems.

CCEWOOL® Low Biopersistent Fiber Paper



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 1200°C (2192°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°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.

APPLICATIONS

- High temperature gasket and sealing in various application;
- Fire proof;
- Fireproof doors;
- Expansion joints ;
- Fireplace converter gasket;
- Gasket between Aluminum and zinc washer
 - High temperature gaskets
 - Metal lining;
- Melting and holding furnaces refractory backing.



TECHNICAL DATA

CCEWOOL® Low Biopersistent Fiber Paper	
Classification temperature	1200 °C(2192°F)
Density, Kg/m ³	190-210
Operation temperature	1000°C (1832°F)
Melting point	>1300°C (2372°F)
Tensile strength(Kpa)	>250
Loss on ignition (wt%)	9
Permanent Linear shrinkage, % ENV(1094-1)	
After 24 hours	1.5
Thermal conductivity (%)	
400°C	0.1
600°C	0.16
800°C	0.22
Chemical composition (%)	
SiO ₂	65-68
CaO+MgO	27-33
others	<=3%
Specification (MM)	
	60000*610*1;30000*610*2
	20000*610*3;15000*610*4
	12000*610*5;10000*610*6
	Min Width: 5cm
Package	Inner Plastic Bag+Outer Carton

CCEWOOL® Low Biopersistent Fiber Module



CCEWOOL® Low Biopersistent Fiber Module is compressed from soluble fiber blankets. Soluble 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.

TECHNICAL DATA

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

CHARACTERISTICS

- High temperature stability (up to 1300° C);
- Low thermal conductivity;
- Thermal shock resistance;
- Low heat storage;
- Lightweight;
- Fast installation & selection of attachment systems.

APPLICATIONS

- Heat treatment and forge furnaces;
- Annealing furnaces;
- Process heaters;
- Ceramic tunnel kilns and Intermittent kilns;
- Stress relieving furnaces;
- Door and cover linings;
- Carbottom heating furnaces;
- Stack, flue and duct linings;
- Incinerators and boilers;
- Ladle preheat stands.

CCEWOOL® Low Biopersistent Fiber Bulk



CCEWOOL® Low Biopersistent Fiber Bulk consists of calcium, magnesium, silicate. The fibers can be degraded in the human body to meet the requirements of health and environmental protection. CCEWOOL® Low Biopersistent Fiber Bulk serves as the foundation for soluble fiber products such as blanket, board, paper and other vacuum-formed products. It can meet European regulatory requirements (Directive 97/69/EC).

CHARACTERISTICS

- Excellent thermal shock resistance;
- Excellent thermal insulating performance;
- Low thermal conductivity;
- Low heat storage;
- Low bio-persistence.

APPLICATIONS

- Raw material for finished soluble fiber products;
- Insulating fill for complex spaces and difficult access;
- Packing expansion Joints;
- Tube seal packing;
- Fire door infill.

TECHNICAL DATA

CCEWOOL® Low Biopersistent Fiber Bulk		
Classification Temperature (°C)(°F)	1200°C(2192°F)	1300°C(2372°F)
Chemical Composition (%)		
SiO ₂	65-68	≥70
CaO	27-33	-
MgO	2-7	-
CaO+MgO	-	≥20
Color	Light Bluish	Light Bluish
Shot Content(%)	≤12	≤12
Fiber Diameter(μm)	3-5	3-5

CCEWOOL® Low Biopersistent Chopped Fiber



CCEWOOL® Low Biopersistent Chopped Fiber is made by crushing CCEWOOL soluble fiber bulk through professional automatic crusher. Chopped fiber bulk is raw material for producing soluble fiber board and soluble fiber paper. With automated operation system, we can produce more uniform chopped fiber and the particle size of chopped fiber can be more accurate. We can make chopped soluble fiber of different particle sizes according to customers' requirements. CCEWOOL® Low Biopersistent Chopped Fiber is widely used as thermal insulation materials in industrial kilns, boilers, pipes, chimneys, etc, and its thermal insulation effect is remarkable.

CHARACTERISTICS

- Low heat capacity and low thermal conductivity;
- Excellent chemical stability;
- Excellent thermal stability, resistance to pulverization at high temperature;
- With no binders or corrosive substances;
- Excellent sound absorption.

APPLICATIONS

- Raw material for fiber blanket, board, textile and unshaped vacuum formed products;
- Expansion joints;
- Furnace base seals;
- Tube seals;
- Burner tile packing;
- Chimney insulation.

TECHNICAL DATA

CCEWOOL® Low Biopersistent Chopped Fiber		
Classification Temperature (°C)(°F)	1200°C(2192°F)	1300°C(2372°F)
Chemical Composition (%)		
SiO ₂	65-68	≥70
CaO	27-33	-
MgO	2-7	-
CaO+MgO	-	≥20
Color	Light Bluish	Light Bluish
Shot Content(%)	≤12	≤12
Fiber Diameter(μm)	3-5	3-5

CCEWOOL® Low Biopersistent Fiber Textiles



CCEWOOL® Low Biopersistent Fiber Textiles are made from soluble fibers combined with glass filament or stainless steel wire. Soluble fiber products are an innovative solution for high-temperature applications. Based on their unique chemical composition with calcium and magnesium, they can meet the demands of 1200°C usage while maintaining significant solubility and environmental characteristics. CCEWOOL® Low Biopersistent Fiber Textiles exhibit excellent chemical stability, remaining unaffected by most chemicals except for hydrofluoric acid, phosphoric acid, and concentrated alkalis. Even when exposed to water or steam, their thermal and physical properties remain unaffected after drying. They possess a solubility certificate from the European Fraunhofer Laboratory.

TECHNICAL DATA

CCEWOOL® Low Biopersistent Fiber Textiles							
Description	Cloth		Tape		Yarn		
Reinforcement	Glass Fiber	Stainless Steel	Glass Fiber	Stainless Steel	Glass Fiber	Stainless Steel	
Continuous Temperature Use Limit (°C)	650	1000	650	1000	650	1000	
Color	Light Bluish		Light Bluish		Light Bluish		
Density (kg/m³)	500		550-600		-		
Organic Content (%)	≤18		≤18		≤18		

CCEWOOL® Low Biopersistent Fiber Textiles							
Description	Round Braided Rope		Square Braided Rope		Twisted Rope		Woolen
Reinforcement	Glass Fiber	Stainless Steel	Glass Fiber	Stainless Steel	Glass Fiber	Stainless Steel	Glass Fiber
Continuous Temperature Use Limit (°C)	650	1000	650	1000	650	1000	650
Color	Light Bluish		Light Bluish		Light Bluish		Light Bluish
Density (kg/m³)	550-600		550-600		550-600		550-600
Organic Content (%)	≤18		≤18		≤18		≤18

CHARACTERISTICS

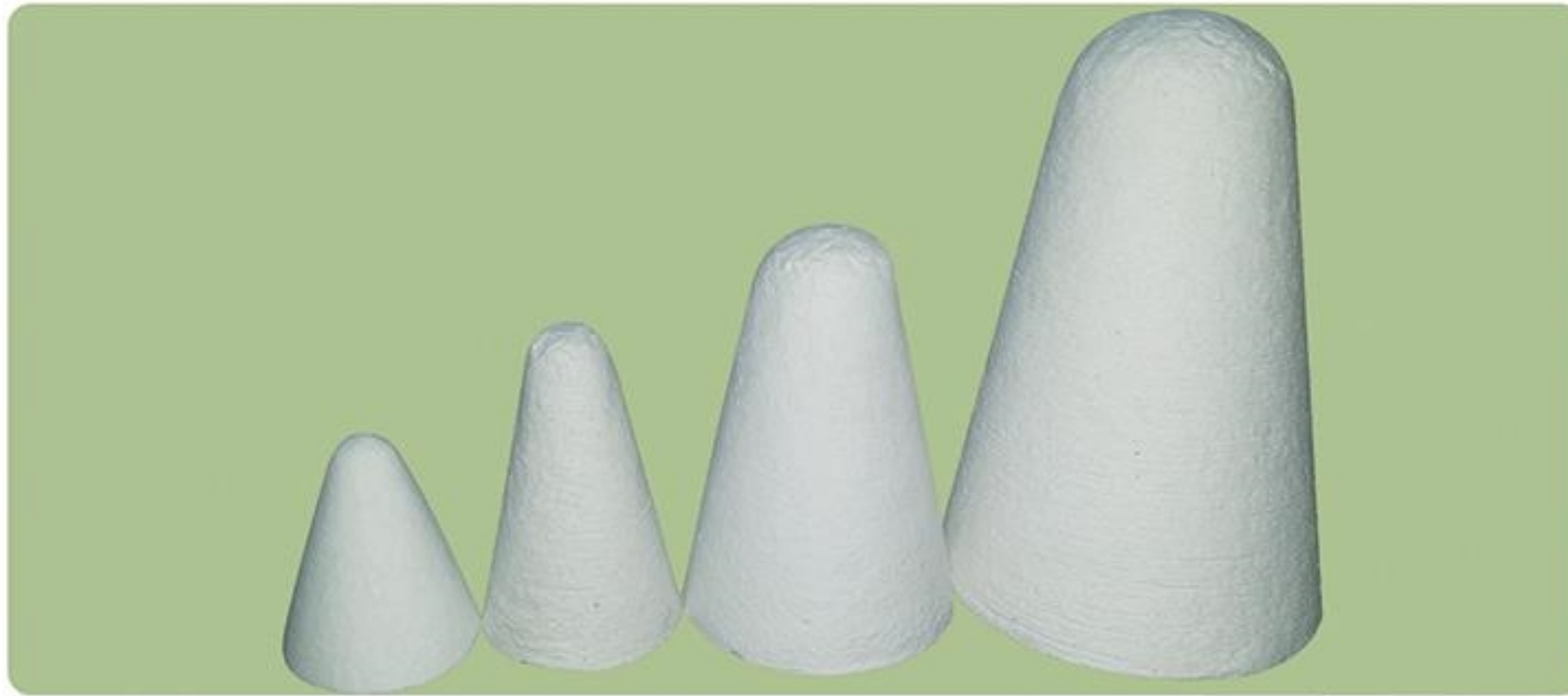
- Low thermal conductivity;
- Excellent thermal shock resistance, thermal stability;
- Excellent tensile strength;
- Sound insulation;
- Easy cut and easy stall;
- Containing no asbestos;
- Chemical corrosion resistance.

APPLICATIONS

- Furnace door insulation and sealing;
- Filling expansion joints in boilers and kilns;
- Coke oven door frame sealing;
- High-temperature gaskets and packaging;
- Expansion joint filling;
- Heat treatment furnace for wrapping radiation tubes;
- Coating between reinforcement and casing to prevent molten liquid leakage.



CCEWOOL® Low Biopersistent Fiber Shapes



CCEWOOL® EcoFiber Shapes are made from a blend of soluble fiber blanket, organic, and inorganic binders to form a rigid product. Our CCEWOOL® EcoFiber Shapes can come into direct contact with fire and can be custom-made into various shapes according to customer-provided drawings. It has an extremely low thermal conductivity, low heat storage capacity, and excellent resistance to thermal shock. During use, the product exhibits good wear resistance and resistance to spalling, and it is not wetted by most molten metals. It possesses a soluble test certificate from the European Fraunhofer Laboratory.

CHARACTERISTICS

- Can be made into various of complex shapes, high dimension accuracy;
- Contact with flame directly, no odor and volatile gases at high temperatures;
- High mechanical strength, resistance to gas flow;
- Low shrinkage, low thermal conductivity;
- Excellent strength in high temperature and thermal stability.

APPLICATIONS

- Industrial kilns observation hole, thermometer hole;
- Industrial furnace burner brick;
- Industrial furnace door;
- Sump and launder for aluminum products industry;
- Heat insulation for thermal radiation in civil and industrial heating device;
- Nozzle and door sealing for the industrial furnace;
- Non-ferrous metal molten channel;
- Lining for pad, cap, of found, electrical equipment connect gaskets.

TECHNICAL DATA

CCEWOOL® Low Biopersistent Fiber Shapes		
Classification Temperature (°C)	1200°C(2192°F)	1300°C(2372°F)
Color	Light Bluish	Light Bluish
Density (kg/m ³)	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



Polycrystalline Wool Fiber



The temperature grade reaches up to 1600°C (2912°F).

Polycrystalline fiber is a microcrystalline fiber prepared through the chemical sol-gel method, with the primary crystal phase of the fiber being mullite. Therefore, polycrystalline fiber is a type of refractory fiber that exists in the form of mullite crystal phase, maintaining its excellent dimensional stability and elasticity even at high temperatures. The advent of polycrystalline fiber completely fills the gap in the fiber field for long-term use at high temperatures ranging from 1350°C (2462°F) to 1500°C (2732°F).

Polycrystalline fiber is more acid and alkali resistant than ceramic fiber and performs better in high-temperature environments involving oxidation, reduction, and chemical erosion. It is an ideal choice for high-temperature and chemically erosive application fields.

CCEWOOL® polycrystalline fiber contains almost no slag balls, and its extremely low slag ball content results in very low thermal conductivity, providing excellent thermal insulation.

It is widely used in high-temperature industrial furnaces and other thermal equipment linings in fields such as metallurgy, machinery, ceramics, electronics, petrochemicals, construction, automotive, aerospace, etc. It achieves the objectives of energy saving and increased production, reducing temperature differences inside furnaces, improving product quality, reducing spare parts consumption, extending the lifespan of furnaces, and improving the working environment.

CCEWOOL® Polycrystalline Wool Fiber Blanket



CCEWOOL® Polycrystalline Fiber Blanket

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CCEWOOL® Polycrystalline Wool Fiber Blanket is an ideal choice for high-temperature and chemically corrosive applications.

CCEWOOL® Polycrystalline Wool Fiber Blanket is produced using sol-gel technology to create fibers of specific dimensions, which are then formed into blankets through a double-sided needling process. The product exhibits excellent strength and flexibility. It is a refractory fiber that exists in the form of mullite crystal phases and maintains its outstanding dimensional stability and elasticity even at high temperatures. The introduction of polycrystalline fiber blankets has effectively filled the gap in the field of fibers for long-term use at temperatures ranging from 1350°C (2462°F) to 1500°C (2732°F).

Polycrystalline fiber blankets are more resistant to acids and alkalis than refractory ceramic fibers and perform exceptionally well in high-temperature environments subjected to oxidation, reduction, and chemical corrosion.

CCEWOOL® Polycrystalline Wool Fiber Blanket is virtually free of shot, resulting in extremely low thermal conductivity and excellent thermal insulation properties.

CHARACTERISTICS

- Almost no shot, white color, and high purity of raw materials;
- Good high temperature resistance and good high-temperature stability;
- Extremely low thermal conductivity, low linear shrinkage after heating;
- Stable chemical properties and strong corrosion resistance;
- Uniform fiber diameter and high tensile strength;
- Excellent thermal stability and thermal shock resistance;
- Excellent chemical stability;
- High tensile strength;
- Low thermal conductivity;
- Low heat capacity;
- High thermal reflectance;
- Excellent thermal strength.

APPLICATIONS

- Hot surface lining insulation of high temperature industrial furnace;
- Wrapping of burner block;
- Expansion joint;
- High temperature gasket in smelting furnace;
- Insulation of boilers, tanks, and furnaces in the power generation industry;
- Insulation of engines, mufflers, and exhaust systems in the automotive industry;
- Insulation for the shipbuilding industry, ships, and oil drilling platforms;
- New energy industry, battery fireproof covers, etc.

TECHNICAL DATA

CCEWOOL® Polycrystalline Wool Fiber Blanket

Classification Temperature	1600°C(2912°F)
Continuous Temperature Use Limit	1500°C(2732°F)
Chemical Composition (%)	
Al ₂ O ₃ (%)	71-73
SiO ₂ (%)	27-29
Leachable Chlorides	Trace
Color	White
Density (kg/m ³)	96/128 (6,8lb/ft ³)
Tensile Strength(kPa)	≥80
Permanent Linear Shrinkage (%)	1400°C x24h<1.0
Thermal Conductivity (W/m-K)	
400°C	0.09
600°C	0.16
800°C	0.22
1000°C	0.28
1200°C	0.36
1400°C	0.45

CCEWOOL® Polycrystalline Fiber Blanket

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CCEWOOL® Polycrystalline Wool Fiber Board



CHARACTERISTICS

- High rigidity and lightweight;
- Resistance to particle and hot gas erosion;
- High strength;
- High temperature resistance;
- Low thermal conductivity and low heat capacity;
- Highly resistant to thermal shock;
- Can resist most chemical attacks;
- No wetting to molten aluminum, non-ferrous metals and other substances;
- Easy to cut, handle, and install;
- Excellent thermal shock resistance;
- Low thermal conductivity;
- Low heat capacity.

APPLICATIONS

- High temperature laboratory;
- High temperature furnaces and kilns;
- Aerospace Industry;
- Spare insulation layer for dense refractory lining;
- Expansion joint;
- Hot surface lining of furnace;
- Alternative insulation materials for amorphous refractory materials and brick refractory materials;
- Ladle lining and cover;
- Aluminum groove liner and special shapes;
- Riser sleeve, tapping cone, and hot top;
- Combustion chamber of boiler and heater;
- Hot gas pipeline, flue, and chimney lining;
- Heat treated insulation;
- Rounded ceramic tiles;
- Burner block;
- Thermal insulation for glass regenerators, tank sides, end walls, and port necks;
- Backup insulation for ladle, tundish, and torpedo car.

CCEWOOL® Polycrystalline Wool Fiber Board is manufactured in a wet forming process using CCEWOOL® Polycrystalline fiber bulk and binders. This product is designed for various applications that require excellent stability and high temperature resistance. It has excellent insulation performance and unparalleled heat resistance, wear resistance, and chemical erosion resistance.

CCEWOOL® Polycrystalline Wool Fiber Board has superior thermal stability and insulation performance compared with refractory ceramic fiber board at extremely high working temperatures, which can reduce energy costs and enhance efficiency. CCEWOOL® Polycrystalline Wool Fiber Board has higher rigidity and fracture resistance compared to refractory ceramic fiber board, making it very suitable for applications where sag resistance is critical.

We offer standard sizes and shapes required in the market. We also make customized sizes as per your specific application.

TECHNICAL DATA

CCEWOOL® Polycrystalline Wool Fiber Board

Description	PCW1400 Board	PCW1450 Board	PCW1600 LD Board	PCW1600 HD Board
Classification Temperature (°C)	1600(2912°F)	1600(2912°F)	1700(3092°F)	1700(3092°F)
Continuous Temperature Use Limit (°C)	1400(2552°F)	1450(2642°F)	1600(2912°F)	1600(2912°F)
Chemical Composition (%)				
AlO	60	62	70	70
Al ₂ O ₃ +SiO ₂	98	98	98.5	98.5
Color	White	White	White	White
Density (kg/m ³)(lb/ft ³)	300	300	250	400
Modules of Rupture(MPa)	≥0.3	≥0.3	≥0.3	≥0.3
Compressive Strength (MPa,10% relative deformation)	0.25	0.25	0.15	0.3
Loss of lanition (%%)	≤8	≤8	≤8	≤8
Permanent Linear Shrinkage (%)	1400°C x 24h ≤ 2.0	1450°C x 24h ≤ 2.0	1600°C x 24h ≤ 1.5	1600°C x 24h ≤ 1.5
Thermal Conductivity (W/m-K)				
400°C	0.08	0.08	0.08	0.08
600°C	0.1	0.1	0.12	0.09
800°C	0.13	0.13	0.14	0.12
1000°C	0.16	0.15	0.17	0.15
1200°C	0.19	0.19	0.2	0.19

CCEWOOL® Polycrystalline Wool Fiber Paper



Temperature Grade 1600°C (2912°F)

CCEWOOL® Polycrystalline Wool Fiber Paper is designed for high temperature applications up to 1600°C. Manufactured from high purity Alumina fibres, using advanced production techniques to ensure uniform fibre distribution and close control of thickness and density.

CCEWOOL® Polycrystalline Wool Fiber Paper is produced using Alumina fibres with the minimum addition of carefully selected bonds, which burn out in service. The ultra-clean 'shot' free properties of the product promote excellent handling and strength characteristics. CCEWOOL® Polycrystalline Wool Fiber Paper has significant benefits as a separating and parting media for vacuum brazing applications and heat treatment. Other applications include gaskets and seals in furnaces with reducing atmospheres and hot isostatic pressing.

CHARACTERISTICS

- Almost no shot, white color, and high purity of raw materials;
- Good high temperature resistance and good high-temperature stability;
- Extremely low thermal conductivity, low linear shrinkage after heating;
- Stable chemical properties and strong corrosion resistance;
- Uniform fiber diameter and high tensile strength;
- Excellent thermal stability and thermal shock resistance;
- Excellent chemical stability.

APPLICATIONS

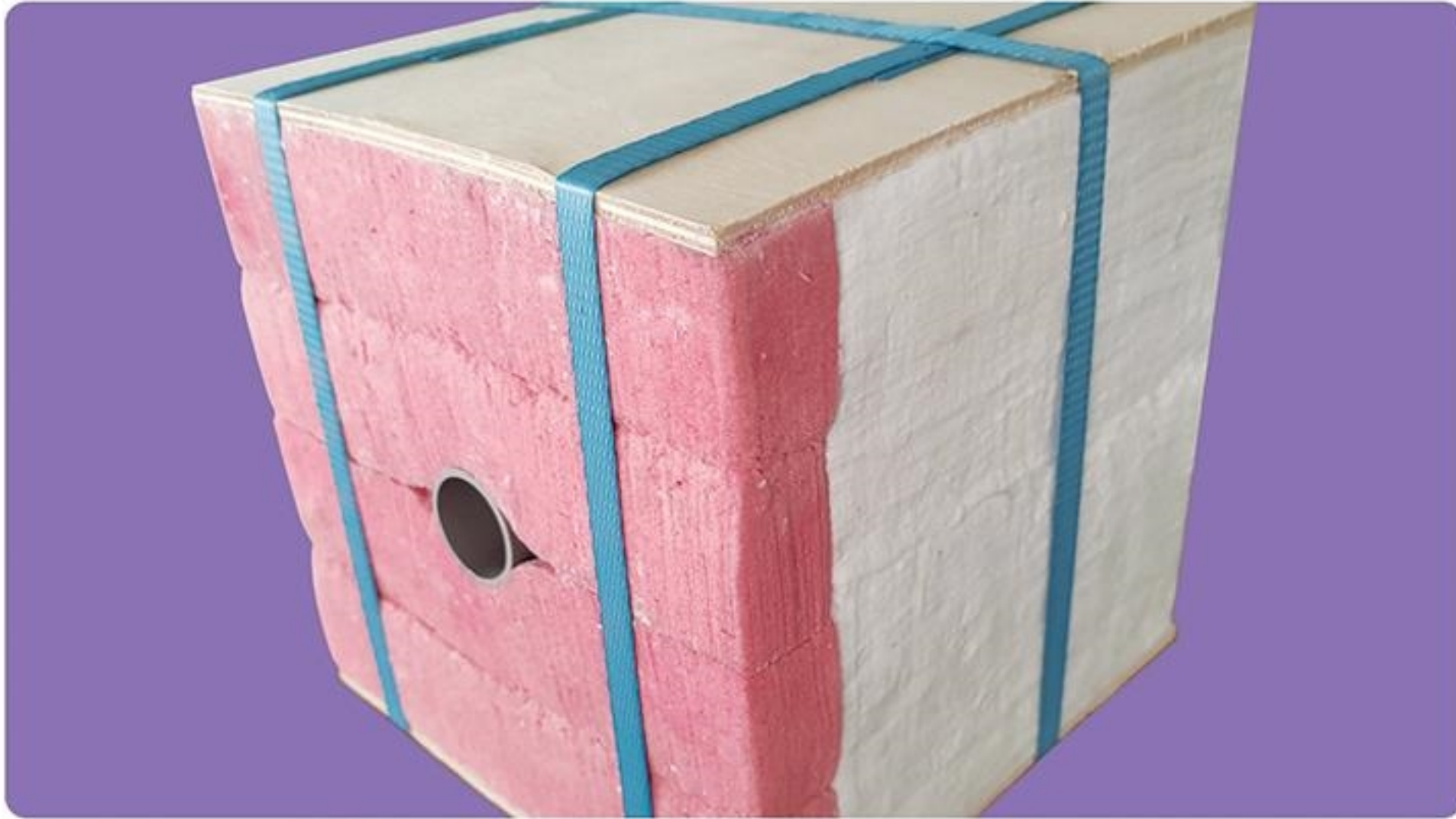
- Expansion joints in industrial furnace linings;
- Strips in new fiber module lining overcome shrinkage;
- Gap filling for lining maintenance/repair;
- High Temperature Gaskets and Seals.



TECHNICAL DATA

CCEWOOL® Polycrystalline Wool Fiber Paper	
Typical Chemical Analysis (fibre wt. %)	
Al ₂ O ₃	95–97
SiO ₂	3–5
Trace	<0.5
Physical Properties	
Colour	White
Classification Temperature (°C)*	1600(2912°F)
Product Density (kg/m ³)	160
Product Thickness (mm)+	8
Loss on Ignition (wt. %)	
from Fibre	0
from Felt	<12

CCEWOOL® Polycrystalline Wool Fiber Module HD



CCEWOOL® Polycrystalline Wool Fiber Module HD is made of Polycrystalline Wool Fiber Blanket. This module is designed specifically to meet the insulation requirements of all fiber lining furnace between 1300 °C (2372 °F) and 1500 °C (2732 °F). CCEWOOL® Polycrystalline Wool Fiber Module HD is equipped with various anchoring systems and can be quickly, easily, and efficiently installed on most furnace linings. CCEWOOL® Polycrystalline Wool Fiber Module HD has the advantages of good corrosion resistance and long service life.

We can produce alumina fiber composite module made of CCEWOOL® Polycrystalline Wool Blanket and CCEWOOL® Ceramic Fiber Blanket 2600 which is more cost saving while meeting the working temperature.

Composite Module A: Module made of CCEWOOL® Polycrystalline Wool Blanket and CCEWOOL® Ceramic Fiber Blanket 2600 through cut, composite, and extrude according to a certain size. It is a high-temperature refractory lining product developed and manufactured specifically for 1200 to 1400 °C high temperature furnace.

Composite module B: All hot surfaces are CCEWOOL® Polycrystalline Wool Blanket, cold side CCEWOOL® Ceramic Fiber Blanket 2600.

This product greatly improves the utilization rate of Polycrystalline Wool Blanket, fully utilizing it on the firing side. This can increase the operating temperature of the module while not increase the usage of PCW blanket. The advantages of Polycrystalline Wool Blanket are fully utilized and the service life of module is extended.

According to practical applications, the thickness of the hot surface Polycrystalline Wool Blanket layer can be adjusted to meet different furnace temperature requirements.

Composite Module C: The hot surface is red and is made of CCEWOOL® Polycrystalline Wool Blanket. It can fully utilize the high-temperature resistance performance of Polycrystalline Wool Fiber, and improve the service temperature and lifespan of the module. The cold surface is white and is made of CCEWOOL® Ceramic Fiber Blanket 2600. It can be hardened at high temperatures, to ensure a sturdy structure. The thickness of the hot surface Polycrystalline Wool Blanket layer can be adjusted to meet different furnace temperature requirements.



CHARACTERISTICS

- Excellent thermal shock resistance;
- Excellent chemical stability;
- High-temperature stability;
- Low thermal conductivity;
- Low installation and repair costs.

APPLICATIONS

- Stress relieving furnaces;
- Annealing furnaces;
- Carbottom heat treating furnaces;
- Process heaters;
- Reheat furnaces;
- Furnace, kiln and boiler linings;
- Incineration equipment and stack linings;
- Soaking pit covers;
- Ladle covers;
- Ladle preheaters;
- Forge furnaces.

TECHNICAL DATA

CCEWOOL® Polycrystalline Wool Fiber Module HD	
Classification Temperature (°C)	1600(2912°F)
Continuous Temperature Use Limit (°C)	1500(2732°F)
Chemical Composition(%)	
Al2O3	71-73
SiO2	27-29
Leachable Chlorides	Trace
Color	White
Density (kg/m3)	128/160/196
	(8,10,12lb/ft3)
Permanent Linear Shrinkage (%)	1400°Cx24h<1.0
Thermal Conductivity (W/m·K)	
400°C	0.09
600°C	0.16
800°C	0.22
1000°C	0.28
1200°C	0.36
1400°C	0.45

CCEWOOL® Polycrystalline Wool Fiber Bulk



CCEWOOL® Polycrystalline Wool Fiber Bulk is the ideal choice for high-temperature and chemically corrosive applications.

CCEWOOL® Polycrystalline Wool Fiber Bulk is made from polycrystalline mullite fibers. It can withstand a continuous operating temperature of up to 1540°C (2800°F) with minimal shot content.

This fiber exhibits excellent thermal stability and is suitable for high-temperature insulation applications. CCEWOOL® Polycrystalline Wool Fiber Bulk serves as a raw material for the production of polycrystalline fiber blankets, boards, papers, and other products.

CHARACTERISTICS

- Excellent thermal shock resistance;
- Excellent chemical stability;
- High-temperature stability;
- Low thermal conductivity;
- Low shot content.

APPLICATIONS

- Raw material for finished alumina fiber products;
- Insulating fill for various industrial furnaces;
- High-temperature seals, gaskets and coatings;
- Ladle cover infill;
- Aerospace industry.

TECHNICAL DATA

CCEWOOL® Polycrystalline Wool Fiber Bulk	
Classification Temperature (°C)	1600
Continuous Temperature Use Limit (°C)	1500
Chemical Composition(%)	
Al ₂ O ₃	71–73
SiO ₂	27–29
Leachable Chlorides	Trace
Color	Bluish
Shot Content (%)	≤1
Fiber Diameter (um)	3–6
Fiber Length (mm)	≥100





Microporous Insulation



Our product series includes the following fiber grades:

CCEWOOL® M60 Board - Classification Temperature 600°C (1112°F)

CCEWOOL® M90 Board - Classification Temperature 900°C (1652°F)

CCEWOOL® M110 Board - Classification Temperature 1100°C (2012°F)

CCEWOOL® Microporous Insulation products consist of microporous insulation materials containing inorganic oxides, which have a lower thermal conductivity than stagnant air.

These microporous insulation products offer excellent performance, significant space savings, lightweight properties, and optimization of thermal energy management, contributing to energy conservation and environmental protection.

Our microporous insulation products and systems serve multiple industries with top-notch thermal energy management performance. Through a wide range of product combinations, our solutions are meticulously optimized to save space, energy, and weight.

Advantages of CCEWOOL® Microporous Insulation Products:

Ultra-Low Thermal Conductivity:

Space, Weight, and Energy Savings: Extremely low thermal conductivity contributes to space, weight, and energy savings.

Increased Equipment Capacity: While maintaining thermal performance, it enhances the capacity of equipment including steel, glass, ceramics, and aluminum.

Weight Reduction: It reduces weight while maintaining thermal performance, potentially reducing structural requirements for furnaces and other high-temperature containers.

Heat Shock Resistance:

CCEWOOL® Microporous Nano Board can resist thermal shocks caused by low and high temperatures.

Thermal Stability:

CCEWOOL® Microporous Nano Board is designed to withstand continuous operating temperatures of up to 2012°F, ensuring stability in high-temperature environments.

Consistent Operating Temperature:

Due to the excellent insulation properties of CCEWOOL® Microporous Nano Board, process adjustments and control become easier, typically resulting in more consistent final products.

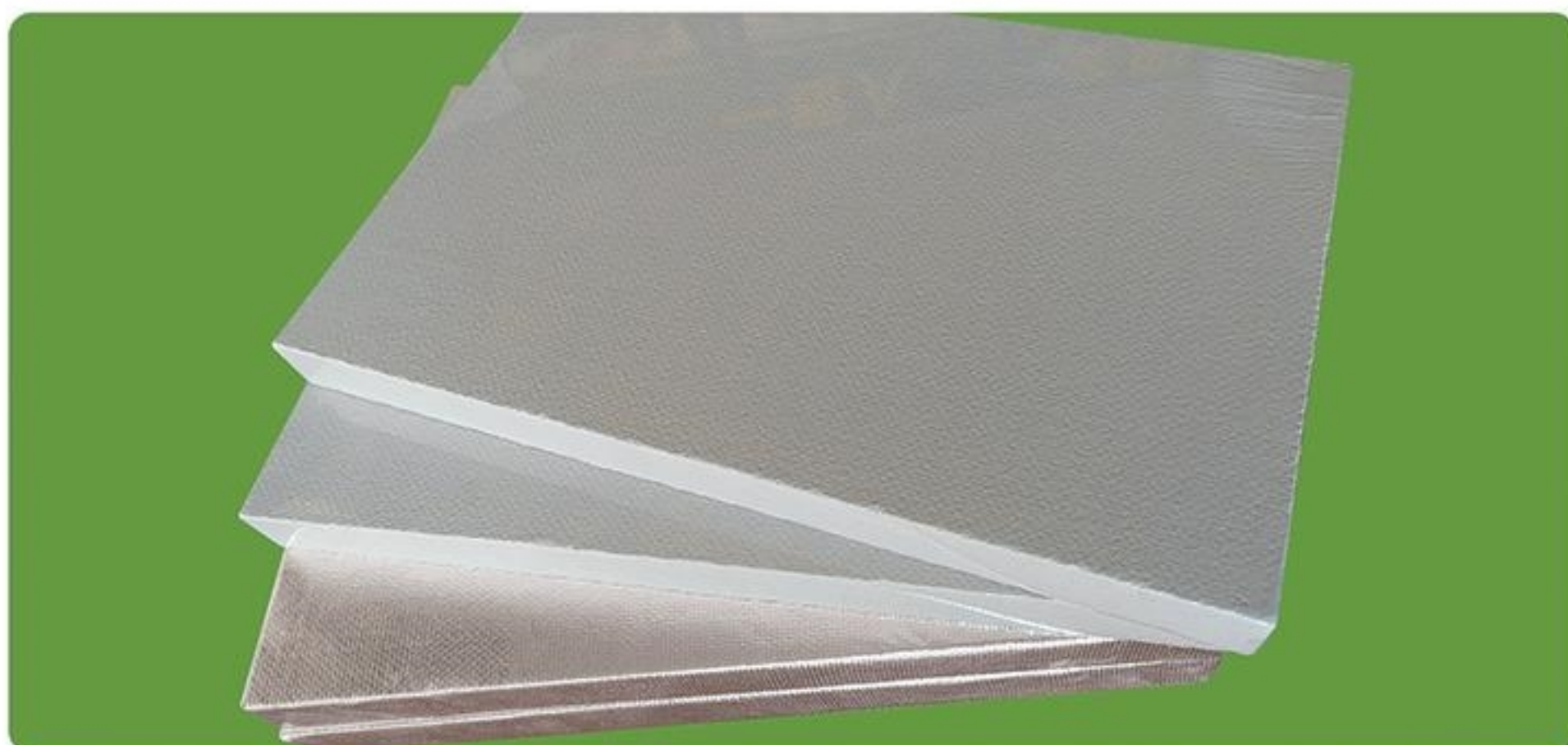
Easy to Process:

CCEWOOL® Microporous Nano Board can be easily processed using common tools, simplifying installation and customization.

Easy Storage:

It can be stored indefinitely and should be handled and stored under conditions free of liquids. Humid air or steam will not adversely affect the stability of CCEWOOL® Microporous Nano Board.

CCEWOOL® M60 Microporous Insulation Board



CCEWOOL® M60 Microporous Insulation Board is an efficient insulation product based on advanced microporous insulation technology. At low temperature, it has a lower thermal conductivity than still air. The thermal conductivity increases very little with the increase of temperature. At high temperature, its insulation effect is 3-4 times higher than traditional insulation materials.

CCEWOOL® M60 Microporous Insulation Board has high compressive strength, covered with aluminum foil or glass fiber cloth.

It is an excellent choice for the lightweight and energy-saving application of kiln.

CHARACTERISTICS

- Good fit to curved surfaces;
- Low thermal conductivity;
- Low heat storage;
- Non-combustibility.

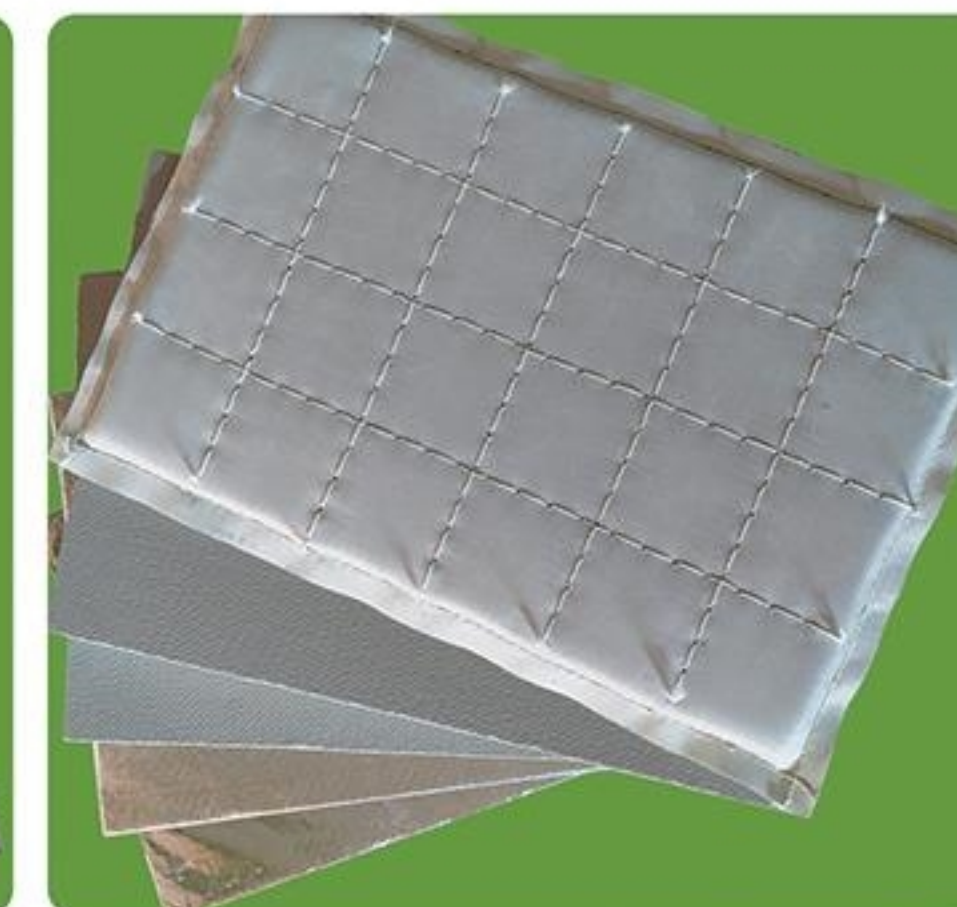
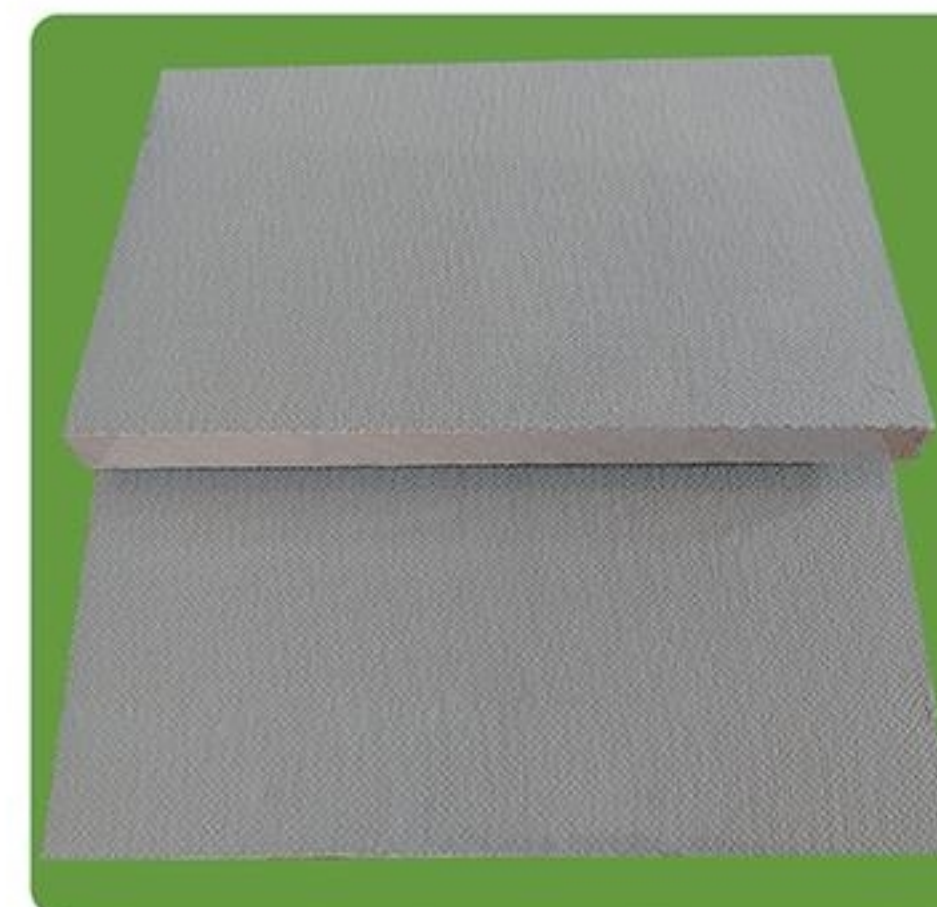
APPLICATIONS

- Typical Applications;
- Back-up insulation in high-temperature furnaces;
- Appliances insulation;
- Fire protection equipment;
- Electronic devices;
- Nonferrous Metal Furnace;
- Rotary & Shaft Kiln;
- Various Incinerator;
- Reheating Furnace;
- Permanent Lining For EAF Ladle;
- General Industrial Furnace etc.

TECHNICAL DATA

CCEWOOL® M60 Microporous Insulation Board	
Description	M60 Board
Recommended Temperature of Use (°C)	600 (1112°F)
Density (kg/m³)	300/320
Modules of Rupture (MPa)	≥0.15
Compressive Strength (MPa, 10% relative deformation)	≥0.3
Permanent Linear Shrinkage (%)	600°C x 24h ≤2.0
Thermal Conductivity (W/m·K)	
100°C	0.022
200°C	0.024
300°C	0.028
400°C	0.029
500°C	-
600°C	-
Covering Material	Aluminum Foil / PE Foil / Glass Fiber Cloth
Standard Size (mm)	600 x 400 x (10-50) 1000 x 500 x (10-50)

CCEWOOL® M90 Microporous Insulation Board



CCEWOOL® M90 Microporous Insulation Board is an efficient insulation product based on advanced microporous insulation technology. It has a lower thermal conductivity than stagnant air, making it an ideal high-temperature insulation material. The surface of the board can be coated with aluminum foil or PE shrink film.

The nano board can also be coated with high-temperature glass fiber materials on the surface of nano-microporous insulation materials using a special process, giving it low thermal conductivity while maintaining moderate flexibility, allowing for multidimensional bending to meet the requirements of special space applications.

CHARACTERISTICS

- Good fit to curved surfaces;
- Excellent thermal shock resistance;
- Excellent thermal stability;
- Low thermal conductivity;
- Low heat storage;
- Non-combustibility.

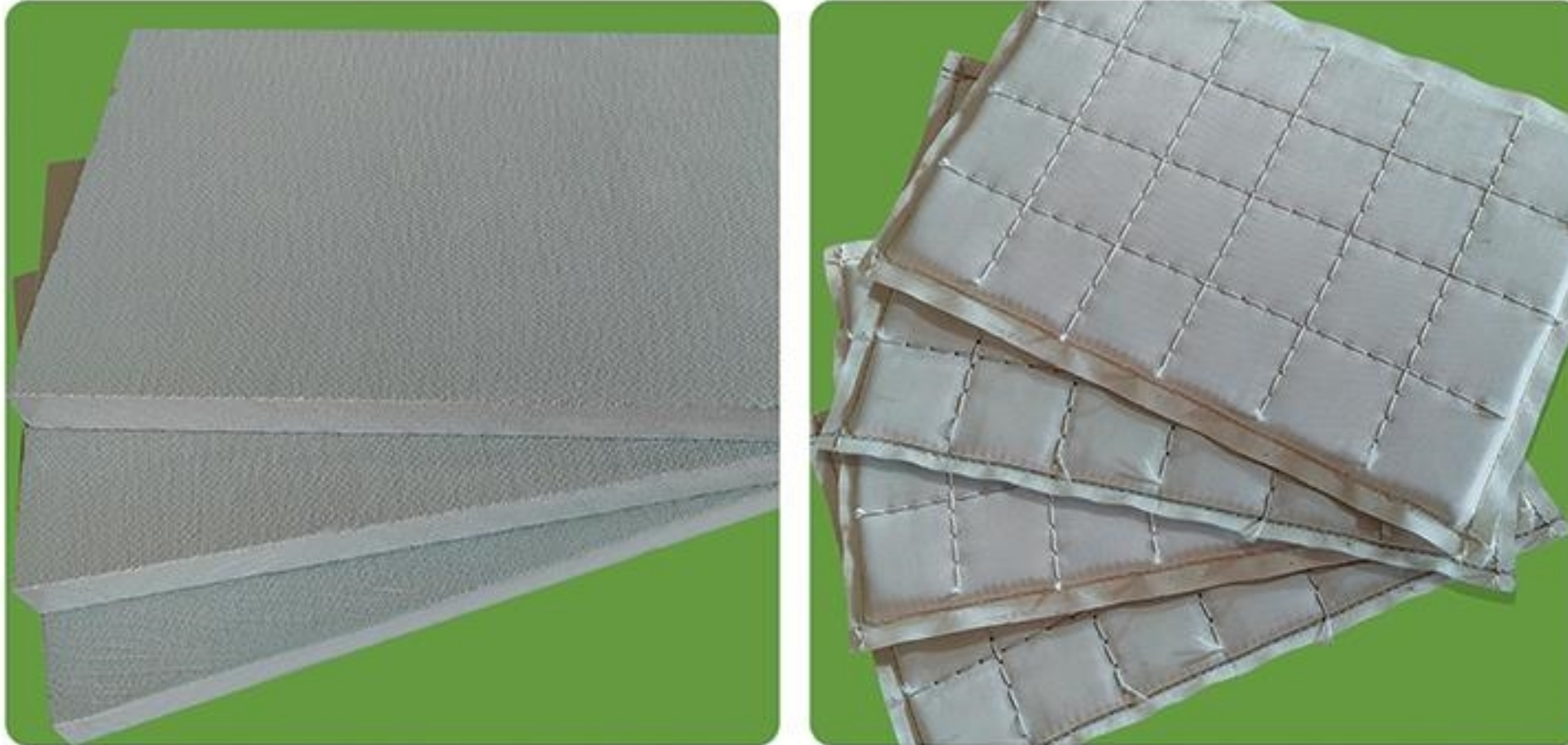
TECHNICAL DATA

CCEWOOL® M90 Microporous Insulation Board	
Description	M90 Board
Recommended Temperature of Use (°C)	900(1652°F)
Density (kg/m³)	280/300
Modules of Rupture (MPa)	≥0.15
Compressive Strength (MPa, 10% relative deformation)	≥0.3
Permanent Linear Shrinkage (%)	900°C x 24h ≤2.0
Thermal Conductivity (W/m·K)	
100°C	0.02
200°C	0.023
300°C	0.026
400°C	0.027
500°C	0.033
600°C	-
Covering Material	Aluminum Foil / PE Foil / Glass Fiber Cloth
Standard Size (mm)	600 x 400 x (10-50) 1000 x 500 x (10-50)

APPLICATIONS

- Typical Applications;
- Back-up insulation in high-temperature furnaces;
- Appliances insulation;
- Fire protection equipment;
- Electronic devices;
- Nonferrous Metal Furnace;
- Rotary & Shaft Kiln;
- Various Incinerator;
- Reheating Furnace;
- Permanent Lining For EAF Ladle;
- General Industrial Furnace etc.

CCEWOOL® M110 Microporous Insulation Board



CCEWOOL® M110 Microporous Insulation Board is a nanoscale microporous insulation material and is the best high-temperature solid insulation material with superior insulation performance to date. The surface can be covered with outer materials such as aluminum foil, glass fiber cloth, etc., to reduce dust, decrease damage, increase strength, and prevent moisture damage. At low temperatures, the product has a lower thermal conductivity than stagnant air, with a slight increase in thermal conductivity as the temperature rises. It provides 3-4 times better insulation performance at high temperatures compared to traditional insulation materials.

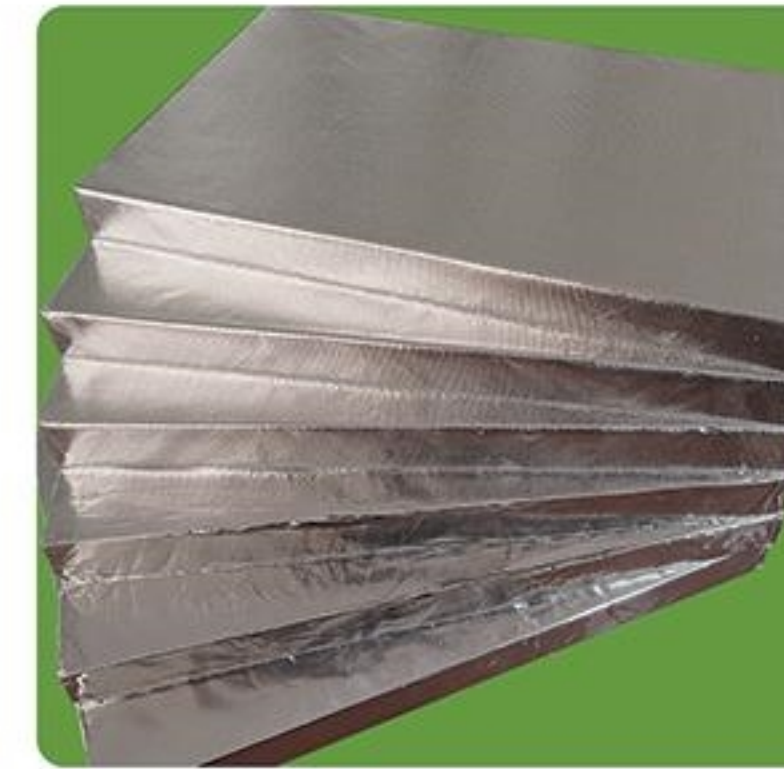
CCEWOOL® M110 Microporous Insulation Board is an ideal material for reducing heat loss and improving energy efficiency, making it an excellent choice for applications such as kilns and other lightweight and energy-saving applications.

CHARACTERISTICS

- Extremely low thermal conductivity, significantly reduces insulation layer thickness and improves insulation efficiency;
- Low heat dissipation and heat storage, increases heating and cooling rates;
- Environmentally friendly, non-toxic, and harmless;
- Durable material, capable of self-support;
- Excellent thermal stability;
- Superior resistance to rapid temperature changes.

APPLICATIONS

- Back-up insulation in high-temperature furnaces;
- Appliances insulation;
- Fire protection equipment;
- Electronic devices;
- Nonferrous Metal Furnace;
- Rotary & Shaft Kiln;
- Various Incinerator;
- Reheating Furnace;
- Permanent Lining For EAF Ladle;
- General Industrial Furnace etc.



TECHNICAL DATA

CCEWOOL® M110 Microporous Insulation Board	
Description	M110 Board
Recommended Temperature of Use (°C)	1100(2012°F)
Density (kg/m³)	320
Modules of Rupture (MPa)	≥0.15
Compressive Strength (MPa, 10% relative deformation)	≥0.3
Permanent Linear Shrinkage (%)	1050°C x 24h ≤2.5
Thermal Conductivity (W/m·K)	
100°C	0.022
200°C	0.024
300°C	0.031
400°C	0.036
500°C	0.04
600°C	0.048
Covering Material	Aluminum Foil / PE Foil / Glass Fiber Cloth
Standard Size (mm)	600 x 400 x (10-50)
	1000 x 500 x (10-50)



Rock Wool



CCEWOOL® Rock Wool - Renewable, Recyclable, Energy saving

CCEWOOL® rock wool is based on superior melted basalt and diabase as the main raw material, through advanced centrifuge system of four-roller cotton process which pulls melted basaltic rock wool into a 4 ~ 7 μ m non continuous fibers followed by adding a certain amount of binder, dust laying oil, water repellent before settlement folding, curing, cutting and other processes, and then made into the products of different density depending on purpose of usage. CCEWOOL® rock wool included rock wool board, rock wool blanket and rock wool pipe.

Advantages of CCEWOOL® Rock Wool:

Wide Applications: Rock wool is suitable for various parts of buildings such as walls, roofs, floors, pipes, and is also used for industrial equipment insulation.

Controllable Insulation Performance: The insulation performance of rock wool can be controlled by selecting materials with different densities and thicknesses to meet various needs.

Long-Term Stability: Rock wool has a relatively long service life and maintains stable insulation performance.

Easy to Process: Rock wool boards are easy to cut and install, adapting to the shapes and size requirements of various buildings and equipment.

CCEWOOL® Rock Wool Board



CCEWOOL® rock wool board used basalt and other natural crystal as main material, through high temperature melt into fibers and then adding binders, then curing and made.

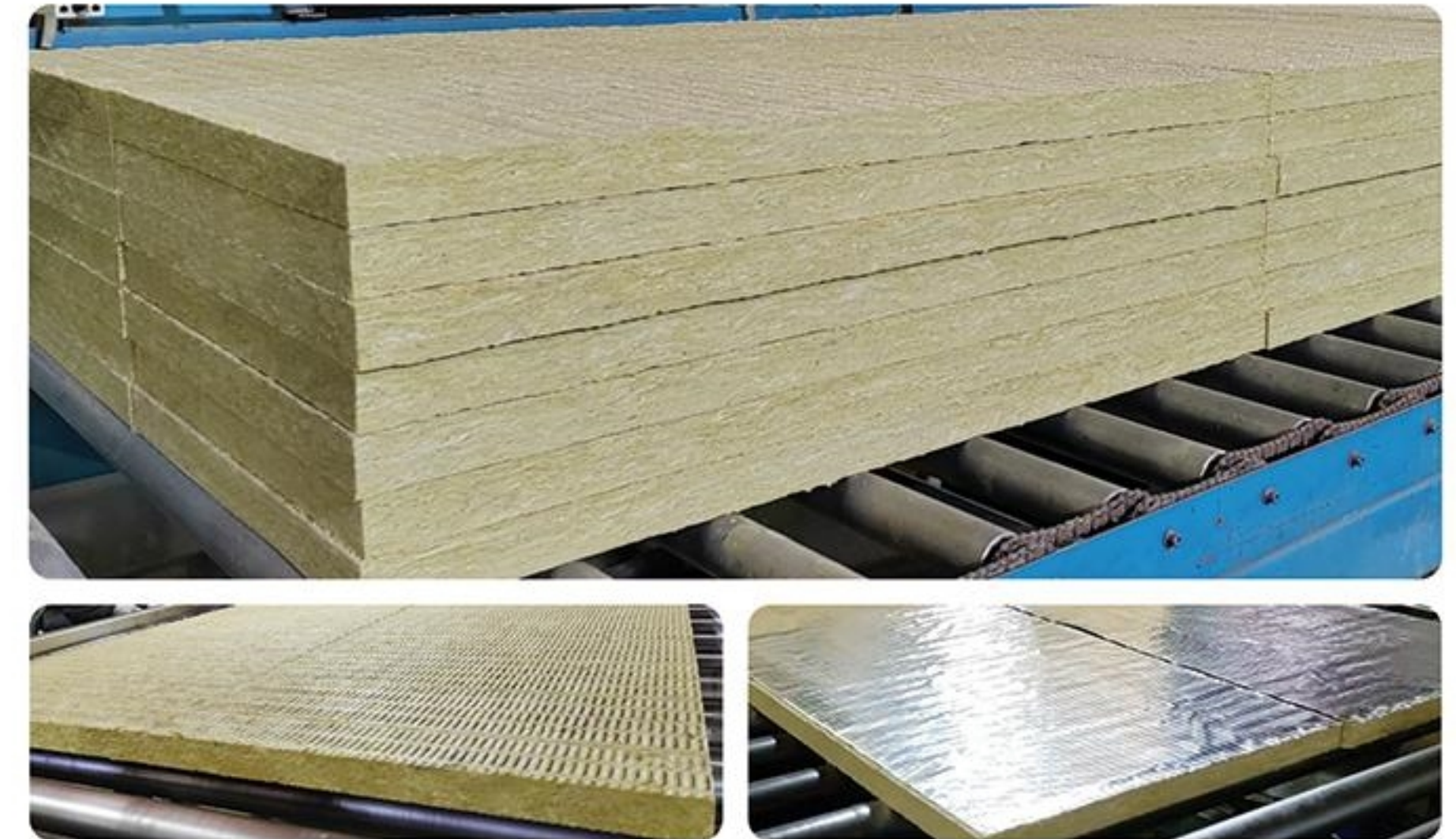
CCEWOOL rock wool boards feature a certain of strength, excellent thermal stability and chemical stability, outstanding sound absorption, heat preservation and other properties. Its fireproofing performance conforms to A1 grade. Water repellent type and low chlorine type of products can be manufactured according to the requirement of customers. Aluminum foil, fiberglass cloth, and other veneer materials can also be overlaid to the surface of products.

CHARACTERISTICS

- Excellent heat insulation and sound proof property;
- Excellent moisture resistance;
- High compressive and tensile strength, low water absorption and moisture absorption;
- Won't occur thermal expansion or contraction, aging resistance;
- Excellent fire protection, thermal insulation and acoustic absorption properties;
- Thermal insulation, fire and extreme weather protection to building.

APPLICATIONS

- Construction industry: building wall insulation, thermal insulation and noise absorption for walls, roof and building envelop;
- Petrochemical industry: thermal insulation and noise absorption for electricity and chemical industry equipment;
- Mining industry: thermal insulation and fire proof for industrial furnace, oven, large caliber tank and vessels.



TECHNICAL DATA

CCEWOOL® Rock Wool Board						
Properties	Unit	Density				
		80	100	120	140	150
Combustion performance	--	Class A1 non-combustion				
Compression Strength(10%deformation)	kPa	≥40				
Hydrophobic rate	%	≥98.0				
Melt temperature	°C	>1000				
Acidity ratio	--	≥1.8				
Moisture absorption rate	%	≤1.0				
Thermal conductivity(average 25°C)	W(m.k)	≤0.048			≤0.040	
Dimensional stability	%	≤1.0				
Water absorption(Partial Immersion)	Kg/m2	Short term(24h)≤1.0				
		Long term(28d)≤3.0				
Thickness tolerance	mm	±2			±3	
Right angel degree of deviation	mm/m	≤5				
Planeness tolerance	mm	≤6				
properties after ignition-burning	Shrinkage percentage	%	(750°C,0.5h)≤8			
	Mass loss rate	%	(750°C,0.5h)≤10			

CCEWOOL® Rock Wool Blanket



CCEWOOL® Rock Wool Blanket is flexible and can well fit irregular equipment and large pipes. Its good length can effectively reduce the number of joints and thermal bridges. Water repellent type and low chlorine type of products can be manufactured according to the requirement of customers. Aluminum foil, fiberglass cloth, and other veneer materials can also be overlaid to the surface of products.

CCEWOOL® industrial Rock Wool Blanket is mainly used for heat preservation, noise reduction, and personal protection from large-diameter pipes, large storage tanks, uneven surfaces, dust collector walls as well as flue gas pipes in power plants and chemical plants, and at the same time it strengthens fireproofing performance.

CHARACTERISTICS

- Thermal insulation;
- Absorb noise;
- Healthy and eco-friendly;
- Moisture resistance;
- Energy saving.

APPLICATIONS

- Applied into building wall and roof with good insulation and sound absorption property;
- Widely used as thermal insulation material in boiler, vessel, valve and large-diameter pipe.



TECHNICAL DATA

CCEWOOL® Rock Wool Blanket			
Maximum Use Temperature (°C)		550	750
Recommended Use Temperature (°C)		450	650
Surface burning characteristics	Flue gas development index	≤25	
	Flame spread index	0	
Combustion performance		Non-combustible A1	
Volumetric hygroscopic rate (%)		≤1	
Mass hygroscopic rate (%)		≤1	
Density (kg/m³)		80	100
Thermal Conductivity (W/m·K)	70°C	0.04	0.038
	100°C	0.046	0.042
	150°C	0.05	0.048
	200°C	0.064	0.056
	250°C	0.076	0.063
	300°C	0.08	0.07
	350°C		0.077
	400°C		0.085
Health and safety		No asbestos , No irritating odor, No bacteria	

CCEWOOL® Rock Wool blanket with Wire Mesh



CCEWOOL® heat-resistance Rock Wool blanket with Wire Mesh is manufactured in rolls, which is made from rock wool felt and galvanized iron wire mesh or stainless-steel wire mesh sewn together with galvanized iron wire or stainless-steel wire. It features good elasticity, thermal preservation, and easy construction. Water repellent type and low chlorine type of products can be manufactured according to the requirement of customers. Aluminum foil, fiberglass cloth, and other veneer materials can also be overlaid to the surface of products.

CCEWOOL® heat-resistance Rock Wool blanket with Wire Mesh is ideal for thermal insulation, fire prevention and sound absorption and noise reduction in large pipe networks, large storage tanks and containers, furnaces, and air ducts. It is especially suitable for places with high temperature and vibration or where a high fireproof standard is required.

CHARACTERISTICS

- Thermal insulation;
- Absorb noise;
- Healthy and eco-friendly;
- Moisture resistance;
- Energy saving.

APPLICATIONS

- Applied into building wall and roof with good insulation and sound absorption property;
- Widely used as thermal insulation material in boiler, vessel, valve and large-diameter pipe.



TECHNICAL DATA

CCEWOOL® Rock Wool blanket with Wire Mesh			
Maximum Use Temperature (°C)		550	750
Recommended Use Temperature (°C)		450	650
Surface burning characteristics	Flue gas development index	≤25	
	Flame spread index	0	
Combustion performance		Non-combustible A1	
Volumetric hygroscopic rate (%)		≤1	
Mass hygroscopic rate (%)		≤1	
Density (kg/m³)		80	100
Thermal Conductivity (W/m·K)	70°C	0.04	0.038
	100°C	0.046	0.042
	150°C	0.05	0.048
	200°C	0.064	0.056
	250°C	0.076	0.063
	300°C	0.08	0.07
	350°C		0.077
	400°C		0.085
Health and safety		No asbestos , No irritating odor, No bacteria	

CCEWOOL® Rock Wool Pipe



CCEWOOL® heat-resistance Rock Wool Pipe is made of rock wool fiber rolled by amold and cured under high temperature. For easy installation, it can be cut along the axis of the shell to facilitate construction. It ensures the tight coupling between the shell and the pipelines that needs insulation. The outer surface of the shell can be polished according to the requirement of customers to achieve the exact thickness of the insulation. Water repellent type and low chlorine type of products can be manufactured according to the requirement of customers. Aluminum foil, fiberglass cloth, and other veneer materials can also be overlaid to the surface of products.

CCEWOOL® water-resistance Rock Wool Pipe is especially suitable for energy saving of hot and cold pipelines, and plays an important role in maintaining temperature, protecting personal safety, preventing condensation, and reducing noise. This product is rolled with a mold, closely coupled with pipes, and the outer surface is polished to achieve the precise insulation thickness.

CHARACTERISTICS

Thermal insulation;
Absorb noise;
Healthy and eco-friendly;
Moisture resistance;
Energy saving.

APPLICATIONS

Pipe insulation for use in the construction and industrial sectors.

TECHNICAL DATA

CCEWOOL® Rock Wool Pipe						
Properties	Unit	Density				
		80	100	120	140	150
Combustion performance	--	Class A1 non-combustion				
Compression Strength(10%deformation)	kPa	≥40				
Hydrophobic rate	%	≥98.0				
Melt temperature	°C	>1000				
Acidity ratio	--	≥1.8				
Moisture absorption rate	%	≤1.0				
Thermal conductivity(average 25°C)	W(m.k)	≤0.048			≤0.040	
Dimensional stability	%	≤1.0				
Water absorption(Partial Immersion)	Kg/m2	Short term(24h)≤1.0				
		Long term(28d)≤3.0				
Thickness tolerance	mm	±2			±3	
Right angel degree of deviation	mm/m	≤5				
Planeness tolerance	mm	≤6				
properties after ignition-burning	Shrinkage percentage	%	(750°C,0.5h)≤8			
	Mass loss rate	%	(750°C,0.5h)≤10			



Calcium Silicate Board



CCEWOOL® calcium silicate board offers outstanding thermal insulation performance and exceptional resistance to chemical corrosion, making it an ideal choice for insulation in industries such as aluminum and chemical processing.

CCEWOOL® Calcium silicate board, also known as the porous calcium silicate board, is a fiber-reinforced calcium silicate board, with silicon oxide, calcium oxide, and the reinforcing fibers as the main raw materials, made through mixing, heating, gelling, molding, autoclaving and drying processes. The product is characterized with high temperature resistant, hard, durable, without corrosion and without pollution, which can be widely used in power plant, refining, petrochemical, building, vessel filed. Temperature degree: 650°C and 1000°C.

Advantages of calcium silicate board:

1. Accurate sizes, polished on both sides and cut on all sides, convenient for customers to install and use, and the construction is safe and convenient.
2. Calcium silicate boards of various thicknesses available with the thickness ranging from 25 to 100mm.
3. Safe operational temperature up to 1000°C, 700°C higher than ultra-fine glass wool products, and 550°C higher than expanded perlite products.
4. Low thermal conductivity ($\gamma \leq 0.56 \text{w/m.k}$), much lower than other hard insulation materials and composite silicate insulation materials.
5. Small volume density; the lightest among the hard insulation materials; thinner insulation layers; much less rigid support required in construction and low installation labor intensity.
6. CCEWOOL calcium silicate boards are non-toxic, tasteless, unable to burn, and have high mechanical strengths.
7. CCEWOOL calcium silicate boards can be used repeatedly for a long time, and the service cycle can last several decades without sacrificing the technical indicators.
8. High strengths, no deformation within the operational temperature range, no asbestos, good durability, water and humidity proof, and can be used for heat preservation and insulation of various high-temp insulation parts.
9. White appearance, beautiful and smooth, good flexural and compressive strengths, and low loss during transportation and use.

CCEWOOL® 650°C Calcium Silicate Board



CCEWOOL® 650°C calcium silicate board is a new type white and hard insulation material, characterized with lightweight, high strength, low thermal conductivity, high temperature resistance, corrosion resistance, cutting. The refractoriness is 650C, can be widely used in power plant, refining, petrochemical, building, vessel filed. The general thickness is between 25mm to 120mm, density ranges from 250kg/m³ to 300kg/m³.

CHARACTERISTICS

On top of light weight, low thermal conductivity, high rupture and compressive strengths, calcium silicate board won't distort even in contact with water, with other features like long service life, sawing-worthiness, easy processing, non-toxics, non-corrosiveness to piping and equipment, etc..

APPLICATIONS

Mainly used as insulation material for thermal equipment and piping in the power, chemical, metallurgy, petrochemical, textile and light industries, as well as insulation for building, ship and train.

TECHNICAL DATA

CCEWOOL® 650°C Calcium Silicate Board		
Classification Temperature	650°C(1202°F)	650°C(1202°F)
Bulk Density (kg/m ³)	230±10	280±10
Rupture Strength (Mpa)	0.323	0.323
Compressive Strength (Mpa)	1.4	1.4
Thermal Conductivity (W/m.k.)		
200C	0.07	0.07
400C	0.1	0.1
Linear Shrinkage(%)		
®1000°C,16hrs	≤2	≤2
Size (mm)	500x500x50~120; 600x300x50~120	500x500x25~50; 600x300x25~50
Packing	Carton or wooden pallet	

CCEWOOL® 1000°C Calcium Silicate Board



CCEWOOL® 1000°C calcium silicate board is a new type white and hard insulation material, characterized with lightweight, high strength, low thermal conductivity, high temperature resistance, corrosion resistance, cutting. The refractoriness is 1000°C, can be widely used in power plant, refining, petrochemical, building, vessel filed. The general thickness is between 25mm to 120mm, density ranges from 250kg/m³ to 300kg/m³.

CHARACTERISTICS

On top of light weight, low thermal conductivity, high rupture and compressive strengths, calcium silicate board won't distort even in contact with water, with other features like long service life, sawing-worthiness, easy processing, non-toxics, non-corrosiveness to piping and equipment, etc..

APPLICATIONS

Mainly used as insulation material for thermal equipment and piping in the power, chemical, metallurgy, petrochemical, textile and light industries, as well as insulation for building, ship and train.

TECHNICAL DATA

CCEWOOL® 1000°C Calcium Silicate Board		
Classification Temperature	1000°C(1832°F)	1000°C(1832°F)
Bulk Density (kg/m ³)	230±10	280±10
Rupture Strength (Mpa)	0.55	0.55
Compressive Strength (Mpa)	1.4	1.4
Thermal Conductivity (W/m.k.)		
	0.058	0.058
	0.095	0.095
Linear Shrinkage(%)		
®1000°C,16hrs	≤1.6	≤2
Size (mm)	1000x500x50~120; 500x500x50~120	1000x500x25~50; 500x500x25~50
Packing	Carton or wooden pallet	

CCEWOOL® HD Calcium Silicate Board



CCEWOOL High-Density Calcium Silicate Board is a specialized refractory board developed for the non-ferrous metal industry, with a density up to 1000kg/m³, compressibility up to 20Mpa, making it highly suitable for high-temperature areas that need to withstand certain pressures. And it has an exceptionally long service life. CCEWOOL High-Density Calcium Silicate Board comes in two types: glass fiber-reinforced and carbon fiber-reinforced, and can be custom-made into various shapes according to customers' drawings.

CCEWOOL® High-Density Calcium Silicate Board is characterized by its high resistance to metal melts wetting, especially non-ferrous metal melt and glass melt. It finds wide application in demanding environments that requires high temperature resistance, high thermal shock resistance, and high corrosion resistance.

CCEWOOL® High-Density Calcium Silicate Board boasts low thermal conductivity, excellent thermal stability, high resistance to infiltration and corrosion, as well as outstanding machining properties. It can be used to manufacture various components for the non-ferrous metal industry, including but not limited to: crucibles, runners, hot top rings, brake pins, lugs, floaters, continuous casting nozzles, cushion plates, in-groove storage for flow channels, machined vertical pipes, front boxes, and molds for the glass industry, as well as grates for the aluminum industry, aluminum melt spouts, pour spout liners, and aluminum industry transition plates.

CCEWOOL® High-Density Calcium Silicate Board can directly contact aluminum melt, and aluminum melt does not adhere to it, offering a lifespan five times longer than ordinary materials. It can withstand temperatures of up to 1000°C (1832°F).



CHARACTERISTICS

- Stable Heat Resistance;
- Excellent Insulating Properties;
- Outstanding Thermal Shock Resistance;
- High Strength and Long Service Life;
- Non-Wetting by non-ferrous metal melt such as aluminum melt;
- Exceptional Corrosion Resistance.

APPLICATIONS

- Aluminum melt spout;
- Aluminum melt transfer plate;
- Aluminum melt grate plate;
- Steel Ladle;
- Automotive glass mold;
- High density calcium silicate crucible spout;
- High density calcium silicate flow tube;
- Hot top ring;
- Brake Pin;
- Fire door frame, fire door edge, fire door jamb.

TECHNICAL DATA

CCEWOOL® HD Calcium Silicate Board			
Items	Unit	Glass Fiber Reinforced	Carbon fiber reinforced
Density	Kg/m ³	800 - 1100	800 - 1100
Compressive strength	Mpa	≥17	≥18
Flexural Strength	Mpa	≥8.5	≥8.5
Thermal conductivity	200°C	w/m.k	≤0.125
	400°C		≤0.142
	500°C		≤0.143
Temp.Limit	°C	1000	1000
Linear Shrinkage	%	length and width: 0.45, height: 1.65	length and width: 0.31, height: 1.61
		(850°C3Hrs)	(850°C3Hrs)



Insulating Fire Brick



CCEFIRE® Insulating Fire Brick offers excellent thermal insulation performance and is an ideal product for energy-saving and long-lasting industrial applications!

CCEFIRE® Insulating Fire Brick is made from high-purity refractory powder and organic fillers which burn out during manufacture to give a uniform and controlled pore structure. The brick is compressed in vacuum and sintered under high temperature. CCEFIRE® Insulating Fire Brick is widely used as hot face refractory lining or back-up insulation in various kinds of industrial furnaces.

We can customize the dimensions of CCEFIRE® Insulating Fire Brick for regular, irregular, and some specialized refractory insulation products used in various parts of kilns, including the kiln mouth.

CCEFIRE® Insulating Fire Brick Temperature Range: 1200°C (2192°F) - 1650°C (3000°F).

CCEFIRE® DJM Insulating Fire Brick



CCEFIRE® DJM Series Mullite insulation brick is a new type of refractory material, which can directly contact with fire, characterized with high temperature resistance, lightweight, low thermal conductivity, good energy saving effect, specially suitable for cracking furnace, hot blast furnace, ceramic roller kiln, porcelain kiln extraction, glass crucible and various electric furnaces as lining. It is an ideal product of energy efficiency and longevity.

APPLICATIONS

Mullite insulation brick can be directly used for high temperature furnace lining;
Mullite insulation brick has been widely used in shuttle kiln, roller kiln, glass and petrochemical furnace lining;
Mullite insulation brick is a kind of high-alumina refractories with mullite (3Al₂O₃·2SiO₂) as its main crystal phase.

CHARACTERISTICS

1. Low thermal conductivity, with good thermal insulation effect;
2. Low heat capacity, due to low thermal conductivity, mullite lightweight insulation brick accumulate little heat energy, and shows obvious energy saving effect in intermittent operation;
3. Low impurity content, with very low content of iron and alkali metal oxide, our mullite insulation brick is characterized with high refractory performance; higher aluminum content enables our product remains good performance in the reducing atmosphere;
4. High compressive strength under high temperature;
5. Accurate appearance size speeds up the bricks laying, saves the use of refractory mortar and also ensures the strength and stability of brickwork and extend the life of the furnace lining;
6. Can be processed into a special shape, in order to reduce the number of bricks and joints.



TECHNICAL DATA

CCEFIRE® DJM Insulating Fire Brick

Item	DJM23C	DJM-23	DJM-24	DJM-26	DJM-28	DJM-30	DJM-32	
Classification Temp(°C)	1260	1260	1300	1430	1540	1650	1760	
Bulk Density(g/cm ³)	0.5	0.6	0.7	0.8	0.9	1	1.25	
Crushing Strength(MPa)	1.2	1.2	1.4	1.6	2.1	2.5	3.5	
Modulus of Rupture(MPa)	1	0.9	1.2	1.4	1.6	2.1	2.1	
Permanent linear change (CT-30°Cx24h)%	0.5	0.5	0.6	0.4	0.5	0.9	0.9	
Reversible thermal expansion at 1100°C	0.5	0.5	0.6	0.7	0.8	0.9	1.1	
Thermal conductivity (W/m.k)	400 °C	0.12	0.12	0.14	0.27	0.32	0.41	0.49
	600 °C	0.14	0.14	0.16	0.29	0.34	0.43	0.5
	800 °C	0.16	0.17	0.18	0.31	0.36	0.44	0.51
	1000 °C	0.18	0.19	0.2	0.33	0.38	0.45	0.53
	1200 °C	-	-	-	0.3	0.41	0.47	0.56
Chemical Analysis(%)	Al ₂ O ₃	37	37	44.5	58	67	73	77
	SiO ₂	47	44.4	41.2	39.1	31	25.1	21.5
	Fe ₂ O ₃	0.7	0.7	0.7	0.7	0.6	0.5	0.4
Common size	230 x 114 x 65/75mm 9" x 4.5" x 2.5"/3" or customized size							



Refractory Fire Brick



CCEFIRE® DCHA Series Fire Bricks



CCEFIRE® DCHA Series Fire Bricks is the refractory products produced with clay clinker as aggregate and refractory clay as the bonding agent, with Al₂O₃ content between 30-48%. Fire bricks is the oldest; the most widely used refractory material.

CHARACTERISTICS

High density;
Good thermal shock resistance;
Excellent volume stability at high temperatures.

APPLICATIONS

Widely used in metallurgy, building materials, chemicals, petroleum, machinery manufacturing, silicate, power and other industrial fields. Clay refractories material is abundance in raw material, simple in processing and in low price. Therefore, they are more widely used than any other refractory materials. They are used in blast furnaces, hot blast stoves, iron furnaces, ladle and ladle systems and soaking ovens and heating furnaces, Non-ferrous metal smelting furnace, silicate industry and chemical industry kiln and all thermal equipment chimney and flue.

TECHNICAL DATA

CCEFIRE® DCHA Series Fire Bricks		
Item	DCHA30	DCHA40
Bulk Density(g/cm ³)	2.05	2.2
Linear Change (%)	1350 °C	1350 °C
(2h)	-0.5	-0.5
Porosity (%) ≤	26	26
Cold Crushing Strength, MPa	15	20
Thermal Shock Resistance	≧25	≧30
Water Cold(Cycle)		
Al ₂ O ₃ (%) ≥	33	50
Fe ₂ O ₃	<3	<2.5
Common size	230x114x65/75mm	

CCEFIRE® DEHA Series High Alumina Refractory Brick



CCEFIRE® DEHA Series High Alumina Refractory Brick is a kind of neutral refractory material with aluminum content more than 48%. High alumina refractory brick is made through calcination and molding from bauxite and other raw materials with high content of alumina. According to different content of alumina in high alumina brick, its fire resistance, refractoriness under load, compressive strength and other indicators are varied.

CHARACTERISTICS

High refractoriness, high refractoriness under load, good thermal shock resistance, acid resistance, alkali resistance, peeling off resistance, erosion resistance and low high temperature creep rate and good strength under high temperature.

APPLICATIONS

High alumina bricks characterized with high thermal stability, high refractoriness above 1770 degrees, good slag resistance, mainly used for electric furnace top, shaft furnace, hot blast furnace, ladle, molten iron, cement kiln, glass kiln and other thermal furnace lining. Widely used in iron making, steel making, chemical industry, cement and other industries.

TECHNICAL DATA

CCEFIRE® DEHA Series High Alumina Refractory Brick

Item	DEHA48	DEHA55	DEHA65	DEHA75
Bulk Density(g/cm ³)	2.25	2.35	2.55	2.65
Refractoriness under Load (°C) ≥	1420	1470	1500	1520
Linear Change (%) (2h)	1450°C	1500°C	1500°C	1500°C
	-0.5	-0.5	-0.5	-0.5
Porosity (%) <	22	22	23	23
Cold Crushing Strength (MPa)	39	44	49	53
Thermal Shock Resistance Water Cold(Cycle)	≥20	≥20	≥20	≥20
Al ₂ O ₃ (%) ≥	48	55	65	75
Fe ₂ O ₃	<2.0	<1.8	<1.8	<1.5
Common size	230x114x65/75mm			

CCEFIRE® DECOR Series Corundum Brick



CCEFIRE® DECOR Series Corundum Brick is a kind of high aluminum brick that is used in special industries. Al₂O₃ content can be traced back to using high purity synthetic corundum like white melted Al₂O₃ and sliced Al₂O₃. Special refractory clay, activated aluminum oxide and high purity SiO₂ are all included in formula of producing corundum brick. We fire bricks under high temperature.

CHARACTERISTICS

High compressive strength at room temperature;
High load softening temperature greater than 1700°C ;
Good chemical stability;
Good acid or alkaline slag resistant;
Strong metal and glass resistant.

APPLICATIONS

Mainly used for blast furnace and blast furnace hot stove, steel refining furnace, glass melting furnace and petrochemical industry furnace.

TECHNICAL DATA

CCEFIRE® DECOR Series Corundum Brick

Item	DECOR90	DECOR95	DECOR90a	DECOR95a	DECOR98	DECOR99	C99E
Density(g/cm ³)	-3	-3.1	-3.2	-3.26	-3.26	-3.15	-3.41
Cold Crushing Strength (MPa)	80	92	100	103	82	90	117
Al ₂ O ₃ (%)	> 90	95	90	95	98	>99	99.5
SiO ₂ (%)	< 9.5	4.9	1.3	1.8	0.1	0.1	0.1
ZrO ₂ (%)	---	---	3.5	3.6	1.8	---	---

CCEFIRE® DEM Series Mullite Brick



CCEFIRE® DEM Series Mullite Bricks characterized with high refractoriness that can reach more than 1790C. Load softening temperature is between 1600 ~ 1700°C. Compressive strength at normal temperature is 70 ~ 260MPa. Good thermal shock resistance.

CHARACTERISTICS

There are sintered mullite and fused mullite brick. The crystallization of fused mullite is larger than sintered mullite and thermal shock resistance is better than sintered products. The high temperature performance is mainly relying on the amount of alumina content and the distribution uniformity of mullite and glass.

APPLICATIONS

Mainly used for top of hot blast stove, the body of blast furnace and furnace bottom, glass furnace regenerator, sintering kiln, and petroleum cracking corner lining system. The ideal composition and high purity of mullite brick make it available to apply in extreme conditions. Such applications are as follows:
Chemical industry,
The glass industry,
Incinerator: highly polluted by waste and gas.

TECHNICAL DATA

CCEFIRE® DEM Series Mullite Brick					
Item		DEM60	DEM65	DEM70	DEM75
Chemical composition	Al ₂ O ₃ (%)	≥60	≥65	≥70	≥75
	SiO ₂ (%)	≤35	≤33	≤26	≤24
	Fe ₂ O ₃ (%)	≤1.0	≤1.0	≤0.6	≤0.4
Apparent Porosity (%)		≤17	≤17	≤17	≤18
Bulk Density (g/cm ³)		≥2.55	≥2.55	≥2.55	≥2.55
Cold Crushing Strength (Mpa)		≥60	≥60	≥80	≥80
Permanent Linear Change On Reheating (%) 1500°CX2h		0~+0.4	0~+0.4	0~+0.4	0~+0.4
Thermal Conductivity (W/MK) 1000 °C		1.74	1.84	1.95	1.95

CCEFIRE® LPD Series Low Porosity Dense Brick



CCEFIRE® LPD Series Low Porosity Dense Brick Al₂O₃ content is 30%-48%, SiO₂ content is 50%-65%, etc. Its refractoriness is 1580-1750°C, refractoriness under load is 1250-1450°C. The dense Dense refractory bricks are used in most industrial plants with high process temperatures with the special achievable properties.

CHARACTERISTICS

Dimensional stability;
Highly resistant to acids;
High thermal shock resistance;
Wide range of applications.

APPLICATIONS

Ceramic industry;
Glass industry;
Cement industry;
Chemical industry;
Iron and steel industry;
Aluminum industry;
Energy production, waste incineration;
Carbon black production.

TECHNICAL DATA

CCEFIRE® LPD Series Low Porosity Dense Brick									
Item	LPD-40	LPD-35	LPD34	LPD33	LPD32	LPD34S	LPD33S	LPD32S	LPD34S-1
Al ₂ O ₃ (%)	≥40	≥45	≥42	≥40	≥35	≥40	≥38	≥33	≥42
Fe ₂ O ₃ (%)	≤2.0	≤1.3	≤1.3	≤1.5	≤1.6	≤1.8	≤1.8	≤1.8	≤1.6
Refractoriness (°C)	≥1730	≥1770	≥1750	≥1730	≥1710	≥1750	≥1730	≥1710	≥1750
Apparent porosity (%)	≤15	≤14	≤16	≤16	≤16	≤19	≤19	≤19	≤18
Normal temperature compressive strength (Mpa)	≥49	≥70	≥60	≥50	≥45	≥40	≥35	≥35	≥45
Linear Change After Heating (%)	1500°C×2h		±0.2	±0.2					
	1350°C×2h			±0.2	±0.2	±0.2	±0.2	±0.2	±0.2
Refractoriness Under Load (T ₂ : °C)	≥1480	≥1500	≥1480	≥1450	≥1400	≥1400	≥1370	≥1350	≥1400



Refractory Mortar



CCEFIRE® Refractory Mortar



CCEFIRE® refractory mortar is made from the same material powders of CCEFIRE® DJM Insulating Fire brick in the same temperature grade, adding binders, moisturizers, additives and composite admixtures to formulate a new kind of masonry material. CCEFIRE® refractory mortar has two types, dry mortar and wet mortar.

CHARACTERISTICS

- High bonding strength;
- High sealing performance;
- High corrosion resistance;
- Low shrinkage at high temperature;
- Long service life.

APPLICATIONS

- Construction of the insulating firebrick of the industrial furnace;
- Prevent the incursion of air and heat into the masonry;
- Prevent the erosion of slag and molten metal to the cracks of bricks.

TECHNICAL DATA

CCEFIRE® Refractory Mortar

Description	DJM 23 MORTAR	DJM 26 MORTAR	DJM 28 MORTAR	DJM 30 MORTAR
Classification Temperature (°C)	1260	1430	1540	1650
Chemical Composition (%)				
Al ₂ O ₃	38	50	60	65
Fe ₂ O ₃	≤1.0	≤0.9	≤0.8	≤0.7
Application	DJM 23 BRICK	DJM 26 BRICK	DJM 28 BRICK	DJM 30 BRICK
Packing	Dry Mortar 50kg / Plastic Bag			
	Wet Mortar 25kg / Plastic Bucket			



Refractory Castable



CCEFIRE® Refractory Castable



CCEFIRE® Refractory castable is unshaped refractory material that doesn't need firing and features fluidness after adding water. Mixed by grain, fines and binder in fixed proportion, refractory castable can replace special shaped refractory material. Refractory castable can be used directly without firing, easy to construct, and has a high utilization rate and high cold crushing strength.

This product have the merits of high density, low porosity rate, good hot strength, high refractories and high refractoriness under load. It is strong in mechanical spalling resistance, shock resistance and corrosion resistance. This product is widely used in thermal equipments, heating furnace in metallurgical industry, boilers in electricity industry, and building material industry furnace.

CHARACTERISTICS

- Furnaces and kilns;
- Metallurgy;
- Petroleum;
- Chemical industry;
- Construction;
- Electric power;
- Machine building.

APPLICATIONS

- Own raw materials base;
- Autocontrol production process assure stable quality.

TECHNICAL DATA

CCEFIRE® Refractory Castable

Type	Corundum	Corundum Mullite	Mullite	High-Alumina						Fire clay			
Item	DECA90	DECA80	DECA60	DECA85	DECA55	DECA65	DECA75	DECA85	DECA70	DECA38	DECA45	DECA42	
AL ₂ O ₃ (%)	≥90	≥80	≥60	≥85	≥55	≥65	≥75	≥85	≥70	≥38	≥45	≥42	
Refractoriness (°C)	≥1790	≥1790	≥1770	≥1790	≥1770	≥1790	≥1790	≥1790	≥1790	≥1690	≥1730	≥1710	
Modulus of rupture (Mpa)	110×24h	≥2.5	≥3.0	≥2.0	≥3.0	≥2.0	≥2.0	≥2.0	≥2.0	≥4.0	≥1.0	≥2.0	≥1.0
	1200×3h	1500×3h	1500×3h	1500×3h	1500×3h	1400×3h	1400×3h	1400×3h	1400×3h	1200×3h	≥3.0	≥6.0	≥3.0
Linear Change After Heating (%)	1500×2h	0+0.5	0+0.5	1.5									
	1400×3h					-4	-4	-4			1200×3h	1300×3h	1300×3h
										-2	-4	-4	