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CCEWOOL THERMOMAX INC. (USA)



**CCEWOOL®**  
**THERMOMAX**  
**REFRACTORY FIBER**

**CCEWOOL®**  
THERMOMAX  
REFRACTORY FIBER *The Most Reputable Brand in  
the Refractory Fiber Field for Over 20 Years*

### 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. Over the last two decades, CCEWOOL® has not only expanded, but has also journeyed to uphold unwavering standards of excellence. We are now recognized as the most prestigious brand in the refractory fiber sector because of our constant devotion. Discover the difference at CCEWOOL®, where quality and worldwide reach converge.

### 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. CCEWOOL® collaborates with experts in the American fireproof building field for research and development, resulting in patented fireproof products that comply with American building fire regulations, establishing CCEWOOL® as a reliable partner in the industry.

### 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, including Metal-Expo Russia, Indo Metal in Indonesia, AISTECH in America, TECNARGILLA in Italy, Foundry METAL in Poland, Metec in Dusseldorf Germany, Ceramitec Munich Germany, 34th ICSOBA Conference and Exhibition, 2016 11th Annual Biz 2 Biz Expo, ALUMINIUM in Germany, Ceramics Expo in Cleveland, EXCON in Peru, The 50th GLOBAL PETROLEUM SHOW, THERM PROCESS Exhibition, ALUMINIUM in USA, 30th HEAT TREATING SOCIETY CONFERENCE & EXPOSITION, Forge Fair in USA, THERM PROCESS /METEC /GIFA /NEWCAST Exhibition, Heat Treat in USA, and more. These participations have made us an unignorable force in global industry exhibitions. Each exhibition experience represents growth and enhancement for our brand, as well as a test of our company's strength, brand power, quality assurance, and R&D capabilities. The verification of over 30 exhibitions in 20 years has established us as a trustworthy brand in the fiber field.

### 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. We adhere strictly to the ISO 9001 quality management system to ensure that each product meets exceptional standards of quality and stability. Our compliance with international standards is demonstrated through our ISO 9001 certification and REACH certification processes.

### 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.

### 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.

### A diverse range of high-temperature products

CCEWOOL®, driven by innovation, focuses on the continuous development of refractory fiber products, including biosoluble fibers, polycrystalline fibers, microporous insulation products, ultra-low thermal conductivity boards, lightweight insulating bricks, and high-density calcium silicate boards, catering to high-temperature application needs across various industries and environments.

### 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. This transparent and trustworthy approach has gained high recognition from customers in over 40 countries.

### 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.

**CCEWOOL®**  
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**REFRACTORY FIBER**

## REFRACTORY FIBER

20+ years hard work has enhanced CCEWOOL® brand popularity and reputation at the international ceramic fiber market. And we are keeping good cooperation relationships with many multinational corporations, such as MZCCS, Vesuvius, Rath, Calderys, Mobil, SIG, Bifire, Cerinnov, Kaefer and Chevron etc.

## Reference





**CCEWOOL®-Research series  
Ceramic fiber friction bulk**

Temperature degree: 1260°C (2300°F)  
CCEWOOL® - Research series ceramic fiber friction bulk is made from standard ceramic fiber bulk through shear, slag-removal processes, and secondary processing, as one of ideal raw material for production of friction materials. This fiber can also be used as mechanical thixotropic agent in coating application with extra advantages of reinforced and fire resistant.

**APPLICATION**

Excellent reinforced material for automobile break lining and other friction 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 sound absorption

**TECHNICAL DATA AND SPECIFICATION**

<b>CCEWOOL® Research series Ceramic Fiber Friction Bulk</b>	
Density	100kg/m <sup>3</sup>
Mean Fiber Diameter (μm)	3.0-5.0
Shot Content (%) φ ≥0.212mm	(Grain diameter ≥100) ≤22
Fiber Length (μm)	150
Chemical Composition (%)	
Al <sub>2</sub> O <sub>3</sub>	≥45
SiO <sub>2</sub>	≥52
Fe <sub>2</sub> O <sub>3</sub>	≤0.8
Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub>	≥97
Packing	Braided Bag



**CCEWOOL®**  
**THERMOMAX  
REFRACTORY FIBER**

**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 1260°C(2300°F) to 1430°C(2600°F). There are three series: Classic series, Purewool series and Research series.

**CLASSIC SERIES**

Super insulation, more stable, more energy efficient

**PUREWOOL SERIES**

Purer material, more durable, lower shrinkage, higher tensile strength

**RESEARCH SERIES**

Your requirement orients our research and development



CCEWOOL® Ceramic fiber blanket

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Temperature degree: 1260°C (2300°F), 1430°C (2600°F)

CCEWOOL® classic series ceramic fiber blanket is manufactured from classic series fiber spun bulk with super high tensile strength and no organic binders. Made through special inside needle flower technology offers this product with safe & stable, energy efficient properties. Meanwhile, different specifications and densities are available.

**CHARACTERISTICS**

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

**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

**CCEWOOL® Classic series ceramic fiber blanket**

Classification temperature	1260STD (2300°F)	1260 HP (2300°F)	1400AZ (2550°F)	1430HZ (2600°F)		
Operation Temp(°C)	1050°C	1100°C	1200°C	1350°C		
Density (kg/m³)	64/ 96/ 128/ 160 (4,6,8,10lb/ft3)					
Permanent Change on Heating (%), EN1094-1						
After 24 hours @950°C	-	-	-	-		
@1000°C	1.5	1.5	-	-		
@1100°C	2.5	2.2	1.5	-		
@1200°C	3	3	2	1		
@1300°C	-	-	3	2		
@1400°C	-	-	-	3		
Tensile Strength(Kg/m³), EN1094-1 KPa						
Density	64kg/m³	30	30	30	30	
	96kg/m³	50	50	50	50	
	128kg/m³	70	70	70	70	
	160kg/m³	100	100	100	100	
Heat Conductive Co-efficient W/(m·k)(128kg/m³)						
Temperature	@200°C	0.07	0.07	0.07	0.06	
	@400°C	0.12	0.12	0.12	0.11	
	@600°C	0.2	0.2	0.2	0.16	
	@800°C	0.3	0.3	0.3	0.23	
	@1000°C	0.45	0.4	0.43	0.35	
Chemical Composition of ceramic blanket (%)						
	Al <sub>2</sub> O <sub>3</sub>	45-46	47-49	45-46	35-38	
	Al <sub>2</sub> O <sub>3</sub> + SiO <sub>2</sub>	≥98	≥99	-	-	
	ZrO <sub>2</sub>	-	-	5	15-17	
	Al <sub>2</sub> O <sub>3</sub> + SiO <sub>2</sub> + ZrO <sub>2</sub>	-	-	≥99	≥99	
	Fe <sub>2</sub> O <sub>3</sub>	≤0.8	≤0.2	≤0.2	≤0.2	
	Na <sub>2</sub> O + K <sub>2</sub> O	≤0.3	≤0.2	≤0.2	≤0.2	
	CaO + MgO	≤0.1	≤0.1	≤0.1	≤0.1	
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: (○) and 1220mm width can be customized according to customer (order amount should not be less than the minimum order quantity)  
(√) for conventional products

CCEWOOL® Ceramic fiber blanket

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**CCEWOOL® Purewool series Ceramic fiber blanket**

**TECHNICAL DATA AND SPECIFICATION**



CCEWOOL® Ceramic fiber blanket

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Temperature degree: 1260°C (2300°F) ,1430°C (2600°F)

CCEWOOL® PUREWOOL series ceramic fiber blanket is the masterpiece of ceramic fiber products. Adopting purer material--alumina, zirconia, monox, Purewool series ceramic fiber blanket is whiter and the tensile strength could reach 0.08MPa. What's more, Purewool series ceramic fiber blanket has longer service life and better insulation property due to the improved raw material.

**CHARACTERISTICS**

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

**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

CCEWOOL® PUREWOOL series ceramic fiber blanket					
Classification Temperature		1260 PST (2300°F)	1430 PHZ (2600°F)		
Operation Temp(°C)		1100	1350		
Density (kg/m³)		96/128/ 160			
Permanent Change on Heating (%), EN1094-1					
After 24 hours	@950°C	-	-		
	@1000°C	1.5	-		
	@1100°C	2	-		
	@1200°C	2.7	1		
	@1300°C	5.5	2		
	@1400°C		3		
Tensile Strength(Kg/m³), EN1094-1 KPa					
Density	96kg/m³	60	60		
	128kg/m³	85	85		
	160kg/m³	120	120		
Heat Conductive Co-efficient W/(m·k)(128kg/m³)					
Temperature	@200°C	0.07	0.06		
	@400°C	0.12	0.1		
	@600°C	0.2	0.15		
	@800°C	0.3	0.2		
	@1000°C	0.35	0.3		
Chemical Composition of ceramic blanket (%)					
	Al <sub>2</sub> O <sub>3</sub>	45-46	35-38		
	Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub>	≥99	-		
	ZrO <sub>2</sub>	-	15-17		
	Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub> +ZrO <sub>2</sub>	-	≥99		
	Fe <sub>2</sub> O <sub>3</sub>	≤0.15	≤0.2		
	Na <sub>2</sub> O +K <sub>2</sub> O	≤0.2	≤0.2		
	CaO+MgO	≤0.1	≤0.1		
Thickness	Density kg/m³			Length	Width
mm	96	128	160	mm	mm
6	-	○	○	7200	610, 1220
13	√	√	○	14640	
19	√	√	○	9760	
25	√	√	√	7320	
38	√	√	√	4880	
50	√	√	-	3660	

Note: (○) and 1220mm width can be customized according to customer (order amount should not be less than the minimum order quantity)  
(√) for conventional products

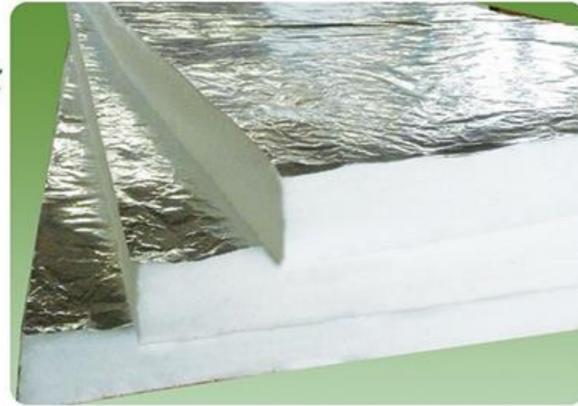
CCEWOOL® Ceramic fiber blanket

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**CCEWOOL® Research series  
alumina foil Ceramic fiber blanket**

CCEWOOL® research series ceramic fiber aluminum foil blanket is mainly used for insulation and fire resistant application in fire protection pipe, flue and vessel.

Adopting European standard aluminum foil, the aluminum foil is thin and has good conformability. Being directly bond without using binders can connect the CCEWOOL ceramic fiber blanket with the aluminum foil better. This product is easy to install and more durable.



**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 AND SPECIFICATION**

CCEWOOL® RESEARCH series ceramic fiber blanket with alumina foil					
Classification temperature	1260STD (2300°F)	1260 HP (2300°F)	1400AZ (2550°F)	1430HZ (2600°F)	
Operation Temp(°C)	1050	1100	1200	1350	
Density (kg/m³)	64/ 96/ 128/160 (4,6,8,10lb/ft³)				
Permanent Change on Heating (%), EN1094-1					
After 24 hours	@950°C	-	-	-	-
	@1000°C	1.5	1.5	-	-
	@1100°C	2.5	2.2	1.5	-
	@1200°C	3	3	2	1
	@1300°C	-	-	3	2
	@1400°C	-	-	-	3
Tensile Strength(Kg/m³), EN1094-1 KPa					
Density	64kg/m³	30	30	30	30
	96kg/m³	50	50	50	50
	128kg/m³	70	70	70	70
	160kg/m³	100	100	100	100
Heat Conductive Co-efficient W/(m·k)(128kg/m³)					
Temperature	@200°C	0.07			0.06
	@400°C	0.12			0.11
	@600°C	0.2			0.16
	@800°C	0.3			0.23
	@1000°C	0.45	0.4	0.43	0.35
Chemical Composition of ceramic blanket (%)					
	Al <sub>2</sub> O <sub>3</sub>	45-46	47-49	45-46	35-38
	Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub>	≥98	≥99	-	-
	ZrO <sub>2</sub>	-	-	5	15-17
	Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub> +ZrO <sub>2</sub>	-	-	≥99	≥99
	Fe <sub>2</sub> O <sub>3</sub>	≤0.8	≤0.2	≤0.2	≤0.2
	Na <sub>2</sub> O+K <sub>2</sub> O	≤0.3	≤0.2	≤0.2	≤0.2
	CaO+MgO	≤0.1	≤0.1	≤0.1	≤0.1

Thickness	Density kg/m³			Length	Width
mm	96	128	160	mm	mm
13	√	√	○	7200	610, 1220
19	√	√	○	9760	
25	√	√	√	7320	
38	√	√	√	4880	
50	√	√	-	3660	

Note: (○) and 1220mm width can be customized according to customer (order amount should not be less than the minimum order quantity)  
(√) for conventional products



**CCEWOOL®**  
**THERMOMAX  
REFRACTORY FIBER**

**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 1260°C (2300°F) to 1430°C (2600°F). CCEWOOL® ceramic fiber board includes Classic series, Purewool series, Research series.

**CLASSIC SERIES**  
Super insulation, more stable, more energy efficient

**PUREWOOL SERIES**  
Purer material, more durable, lower shrinkage, higher tensile strength

**RESEARCH SERIES**  
Your requirement orients our research and development

## CCEWOOL® Classic series Ceramic fiber board

Temperature degree: 1050°C (1922°F), 1260°C (2300°F), 1400°C (2550°F), 1430°C (2600°F)

CCEWOOL® classic series ceramic fiber board is made through automatic vacuum forming process. 24 hours continuously working, quickly drying. CCEWOOL® classic series ceramic fiber board enjoys higher compressive strength, tidy surface and precise size, the thickness varies from 20mm to 100mm, which is easy for installation.

### 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 AND SPECIFICATION

CCEWOOL® classic series ceramic fiber board					
Classification temperature	1050 (1920°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 > 25mm	0.2	0.2	0.2	0.2	0.2
Chemical Composition (%)					
Al <sub>2</sub> O <sub>3</sub>	37	46	46-49	52-55	39-40
Al <sub>2</sub> O <sub>3</sub> + SiO <sub>2</sub>	96	97	99	99	-
ZrO <sub>2</sub>	-	-	-	-	15-17
Al <sub>2</sub> O <sub>3</sub> + SiO <sub>2</sub> + ZrO <sub>2</sub>	-	-	-	-	99
Fe <sub>2</sub> O <sub>3</sub>	≤ 1.0	≤ 0.8	≤ 0.2	≤ 0.2	≤ 0.2
Na <sub>2</sub> O + K <sub>2</sub> O	≤ 0.8	≤ 0.5	≤ 0.2	≤ 0.2	≤ 0.2
Package	Carton box or pallet				

CCEWOOL® classic series ceramic fiber board		
Thickness (mm)	20.25.50.	
Density (kg/m <sup>3</sup> )	280.300.320.350	
Size (mm)	1200*1000 or customized size	

## CCEWOOL® Classic series large size Ceramic fiber board

Temperature degree: 1050°C (1922°F), 1260°C (2300°F), 1400°C (2550°F), 1430°C (2600°F)

CCEWOOL® classic series 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 AND SPECIFICATION

CCEWOOL® classic series large size ceramic fiber board					
Classification temperature	1050 (1920°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 > 25mm	0.2	0.2	0.2	0.2	0.2
Chemical Composition (%)					
Al <sub>2</sub> O <sub>3</sub>	37	46	46-49	52-55	39-40
Al <sub>2</sub> O <sub>3</sub> + SiO <sub>2</sub>	96	97	99	99	-
ZrO <sub>2</sub>	-	-	-	-	15-17
Al <sub>2</sub> O <sub>3</sub> + SiO <sub>2</sub> + ZrO <sub>2</sub>	-	-	-	-	99
Fe <sub>2</sub> O <sub>3</sub>	≤ 1.0	≤ 0.8	≤ 0.2	≤ 0.2	≤ 0.2
Na <sub>2</sub> O + K <sub>2</sub> O	≤ 0.8	≤ 0.5	≤ 0.2	≤ 0.2	≤ 0.2
Package	Carton box or pallet				

CCEWOOL® classic series large size ceramic fiber board	
Thickness (mm)	20.25.50
Density (kg/m <sup>3</sup> )	280.300.320
Size (mm)	1200*2400 or customized size

**CCEWOOL® Purewool series wall hung furnace used Ceramic fiber board**

Temperature degree: 1050°C (1922°F), 1260°C (2300°F), 1400°C (2550°F), 1430°C(2600°F)

CCEWOOL® Purewool series wall hung furnace used ceramic fiber board 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® wall hung furnace used ceramic fiber board 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 AND SPECIFICATION**

CCEWOOL® Purewool series wall hung furnace used ceramic fiber board					
Classification temperature	1050 (1920°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 (%)					
@950°C, 24hrs	4	-	-	-	-
@1200°C, 24hrs	-	3	3	-	-
@1300°C, 24hrs	-	-	-	3	-
@1350°C, 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 <sub>2</sub> O <sub>3</sub>	37	46	46-49	52-55	39-40
Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub>	96	97	99	99	-
ZrO <sub>2</sub>	-	-	-	-	15-17
Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub> +ZrO <sub>2</sub>	-	-	-	-	99
Fe <sub>2</sub> O <sub>3</sub>	≤1.0	≤0.8	≤0.2	≤0.2	≤0.2
Na <sub>2</sub> O+K <sub>2</sub> O	≤0.8	≤0.5	≤0.2	≤0.2	≤0.2
Package	Carton box or pallet				

CCEWOOL® Purewool series wall hung furnace used ceramic fiber board	
Thickness (mm)	10
Density (kg/m <sup>3</sup> )	320. 350
Size (mm)	1200*1000 or 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

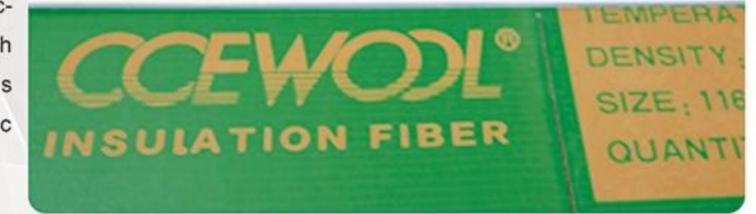
**APPLICATIONS**

- ☆Wall hung furnace, gas boiler heat insulation and refractory

**CCEWOOL® Research series ultra thin Ceramic fiber board**

Temperature degree: 1050°C (1922°F), 1260°C (2300°F), 1400°C (2550°F), 1430°C(2600°F)

CCEWOOL® Research series 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.



**TECHNICAL DATA AND SPECIFICATION**

CCEWOOL® Research series ultra thin ceramic fiber board					
Classification temperature	1050 (1920°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 (%)					
@950°C, 24hrs	4	-	-	-	-
@1200°C, 24hrs	-	3	3	-	-
@1300°C, 24hrs	-	-	-	3	-
@1350°C, 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 <sub>2</sub> O <sub>3</sub>	37	46	46-49	52-55	39-40
Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub>	96	97	99	99	-
ZrO <sub>2</sub>	-	-	-	-	15-17
Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub> +ZrO <sub>2</sub>	-	-	-	-	99
Fe <sub>2</sub> O <sub>3</sub>	≤1.0	≤0.8	≤0.2	≤0.2	≤0.2
Na <sub>2</sub> O+K <sub>2</sub> O	≤0.8	≤0.5	≤0.2	≤0.2	≤0.2
Package	Carton box or pallet				

**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**

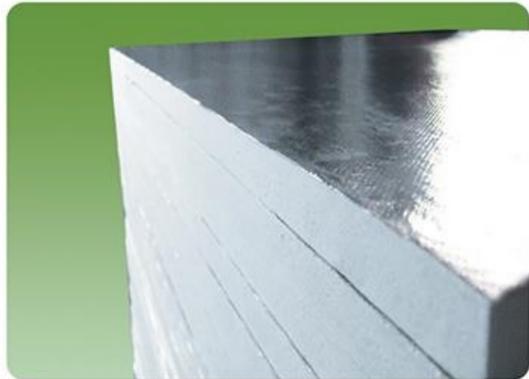
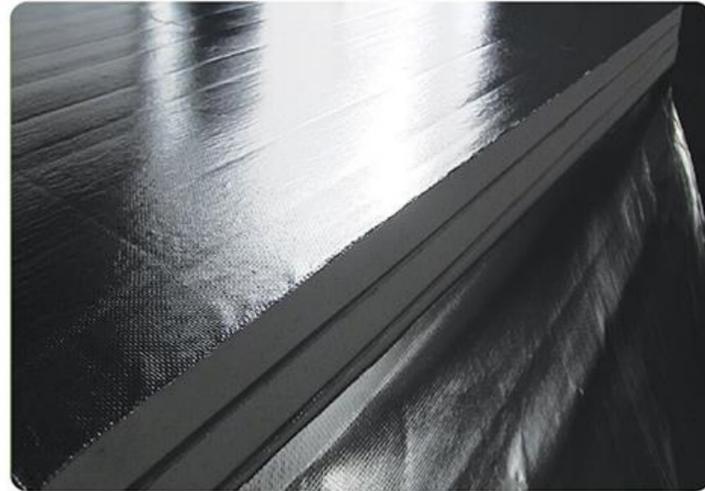
- ☆Electrical appliance and electronic equipment.

CCEWOOL® Research series ultra thin ceramic fiber board	
Thickness (mm)	5. 10
Density (kg/m <sup>3</sup> )	320. 350
Size (mm)	1200*1000 or customized size

**CCEWOOL® Research series aluminum foil Ceramic fiber board**

Temperature degree: 1050°C (1922°F), 1260°C (2300°F), 1400°C (2550°F), 1430°C(2600°F)

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



**TECHNICAL DATA AND SPECIFICATION**

CCEWOOL® Research series alumina foil ceramic fiber board					
Classification temperature	1050 (1920°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 (%)					
@950 °C, 24hrs	4	-	-	-	-
@1200 °C, 24hrs	-	3	3	-	-
@1300 °C, 24hrs	-	-	-	3	-
@1350 °C, 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 <sub>2</sub> O <sub>3</sub>	37	46	46-49	52-55	39-40
Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub>	96	97	99	99	-
ZrO <sub>2</sub>	-	-	-	-	15-17
Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub> +ZrO <sub>2</sub>	-	-	-	-	99
Fe <sub>2</sub> O <sub>3</sub>	≤1.0	≤0.8	≤0.2	≤0.2	≤0.2
Na <sub>2</sub> O+K <sub>2</sub> O	≤0.8	≤0.5	≤0.2	≤0.2	≤0.2
Package	Carton box or pallet				

CCEWOOL® Research series alumina foil ceramic fiber board		
Thickness (mm)	20.25.50.	80.100
Density (kg/m <sup>3</sup> )	280. 300. 320. 350	280. 300. 320
Size (mm)	1200*1000 or 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**

- ☆Marine, aerospace



**CCEWOOL®**  
THERMOMAX  
REFRACTORY FIBER

**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 includes Classic series and Research series.

**CLASSIC SERIES**

Super insulation, more stable, more energy efficient

**RESEARCH SERIES**

Your requirement orients our research and development

**CCEWOOL® Classic series  
Ceramic fiber paper**

CCEWOOL® classic series ceramic fiber paper is also known for aluminum silicate fiber paper, made from 9 shot-removal process. Temperature degrees are 1260 °C, 1400 °C, 1430 °C, thickness varies from 0.5mm to 12mm. It is feasible to be cut into different shapes and size of gaskets according to customer's requirement.

**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

**TECHNICAL DATA AND SPECIFICATION**

CCEWOOL® Classic series Ceramic fiber paper			
Item	1260STD	1400HA	1430HZ
Operation Temperature	1050°C	1200°C	1350°C
Density (kg/m <sup>3</sup> )	180-200		
Tensile Strength (PSI)	58	94	136
Linear Shrinkage (%)			
@1000°C,24hrs	2	-	-
@1100°C,24hrs	-	2	-
@1200°C,24hrs	-	-	2
Lose on ignition (%)	9	9	9
Chemical Composition (%)			
Al <sub>2</sub> O <sub>3</sub>	46	52-55	39-40
Al <sub>2</sub> O <sub>3</sub> + SiO <sub>2</sub>	97	99	-
ZrO <sub>2</sub>	-	-	15-17
Fe <sub>2</sub> O <sub>3</sub>	1	0.2	0.2
Na <sub>2</sub> O + K <sub>2</sub> O	0.5	0.2	0.2
Comm size(MM)	60000*610*1;30000*610*2 20000*610*3;15000*610*4 12000*610*5;10000*610*6 Min Width: 50		
Package	Inner Plastic Bag +Outer Carton		

**CCEWOOL® Research series Ceramic  
fiber retardant paper**

Temperature degree: 1260°C (2300°F), 1400°C (2550°F), 1430°C(2600°F)  
CCEWOOL® Research series 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.

**CHARACTERISTICS**

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

**TECHNICAL DATA AND SPECIFICATION**

CCEWOOL® Research series Ceramic fiber retardant paper			
Item	1260STD	1400HA	1430HZ
Operation Temperature	1050°C	1200°C	1350°C
Density (kg/m <sup>3</sup> )	180-200		
Tensile Strength (PSI)	58	94	136
Linear Shrinkage (%)			
@1000°C,24hrs	2	-	-
@1100°C,24hrs	-	2	-
@1200°C,24hrs	-	-	2
Lose on ignition (%)	9	9	9
Chemical Composition (%)			
Al <sub>2</sub> O <sub>3</sub>	46	52-55	39-40
Al <sub>2</sub> O <sub>3</sub> + SiO <sub>2</sub>	97	99	-
ZrO <sub>2</sub>	-	-	15-17
Fe <sub>2</sub> O <sub>3</sub>	1	0.2	0.2
Na <sub>2</sub> O + K <sub>2</sub> O	0.5	0.2	0.2
Comm size (MM)	60000*610*1;30000*610*2 20000*610*3;15000*610*4 12000*610*5;10000*610*6 Min Width: 50		
Package	Inner Plastic Bag +Outer Carton		

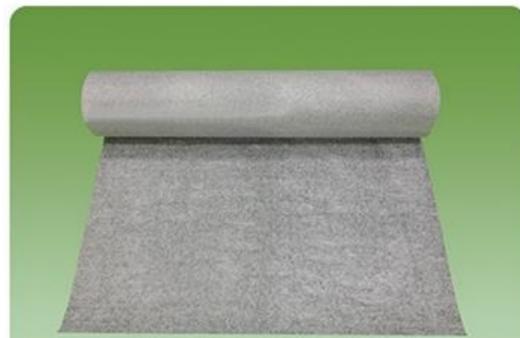


**APPLICATIONS**

- ☆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® Research series  
expandable Ceramic fiber paper**

CCEWOOL® Research series expandable ceramic fiber paper is produced from a mixture of high purity ceramic fiber, natural graphite fine flakes, and organic binders through a fiber washing process. At about 1200 °F (649 °C), the 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 AND SPECIFICATION**

**Physical Properties**

Color	Gray
Maximum temperature rating °C	1260
Continuous use limit °C	1150
Melting point °C	1700
<b>Chemical Content</b>	
Silica, SiO <sub>2</sub>	45-48
Alumina Oxide, Al <sub>2</sub> O <sub>3</sub>	42
Carbon, C	10-15
Other	2
Organic Binder	5-10
<b>Tensile Strength</b>	
16-18 pcf. density	0.5-0.7 MPa
<b>Expansion, %increase</b>	
@400°F	90(from 3mm thickness)
@1800°F	420(from 3mm thickness)
@1800°F	320(from 3mm thickness)
<b>Sizes Available</b>	
	610/1220mm
<b>Thickness</b>	
	2-5mm



**CCEWOOL®**  
THERMOMAX  
REFRACTORY FIBER

**CCEWOOL® Ceramic fiber module**

CCEWOOL® ceramic fiber module is made from the corresponding ceramic fiber material acupuncture blanket processed in dedicated machines according to fiber component structure and size. It can be directly firmed by the anchor on the furnace wall, which has good insulation & refractory property to increase refractory and insulation integrity of furnace. Temperature ranges from 1260°C (2300°F) to 1430°C (2600°F).

**CLASSIC SERIES**

Super insulation, more stable, more energy efficient

**CCEWOOL® Classic series Ceramic fiber module**

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

CCEWOOL® Ceramic Fiber Modules is made from the corresponding ceramic fiber material acupuncture blanket processed in dedicated machines according to fiber component structure and size. In the process, a certain proportion of compression is maintained, in order to ensure modules expand to the different directions after completion of ceramic fiber folded module wall lining, to create mutual extrusion among modules and form a seamless whole unit. Various shapes of SS304/SS310 anchor are available.



**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

**TECHNICAL DATA**

CCEWOOL® Classic series Ceramic Fiber Module					
Item	1050	1260STD	1260HP	1400	1430HZ
Operation Temp	950°C	1050°C	1100°C	1200°C	1350°C
Density	160-220 kg/m <sup>3</sup>				
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 <sup>3</sup>	0.039	0.039	0.039	0.039	0.039
Density-96kg/m <sup>3</sup>	0.078	0.078	0.078	0.078	0.078
Density-128kg/m <sup>3</sup>	0.103	0.103	0.103	0.103	0.103
Density-160kg/m <sup>3</sup>	0.127	0.127	0.127	0.127	0.127
Thermal Conductivity W/(m·k) 128kg/m <sup>3</sup> -1000°C	0.45	0.43	0.4	0.35	0.3
Chemical Composition (%)					
Al <sub>2</sub> O <sub>3</sub>	44	45-46	47-49	52-55	35-38
Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub>	≥96	≥98	≥99	≥99	-
ZrO <sub>2</sub>	-	-	-	-	15-17
Al <sub>2</sub> O <sub>3</sub> +SiO <sub>2</sub> +ZrO <sub>2</sub>	-	-	-	-	≥99
Fe <sub>2</sub> O <sub>3</sub>	≤1.0	≤0.8	≤0.2	≤0.2	≤0.2
Na <sub>2</sub> O+K <sub>2</sub> O	≤0.4	≤0.3	≤0.2	≤0.2	≤0.2
CaO+MgO	≤0.3	≤0.1	≤0.1	≤0.1	≤0.1
Comm size (mm)	L*W: 300*300;450*300;600*300 H: 100;150;200;250;300				
Package	Carton Box or Pallet				

Note: 1. Product which is classified in accordance with temperature range, can also be divided into ceramic fiber cutout, ceramic fiber module and ceramic fiber folded module by different production methods.  
Types of anchor: SS304, SS310(2520)

**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



**CCEWOOL®**  
THERMOMAX  
REFRACTORY FIBER

**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)

**CLASSIC SERIES**

Super insulation, more stable, more energy efficient

**CCEWOOL® Classic series Ceramic fiber yarn**

Temperature degree: 1260°C (2300°F)

CCEWOOL® classic series ceramic fiber yarn is made from ceramic fiber bulk, alkali free glass filament and high temperature resistant inconel wire through special technology, used as heat insulation material in thermal installations and heat conducting systems, also can be extensively made into all kinds of ceramic fiber textiles and an excellent substitute for asbestos.



**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.

**TECHNICAL DATA AND SPECIFICATION**

<b>CCEWOOL® Classic series Ceramic Fiber Yarn</b>		
Classification Temperature (°C)	1260	
Name	Glass Filament Reinforced Yarn	Inconel Wire Reinforced Yarn
Density (kg/m³)	500	
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 box	

**CCEWOOL® Classic series Ceramic fiber cloth**

Temperature degree: 1260°C (2300°F)

CCEWOOL® classic series ceramic fiber cloth is a woven fabric made from our high quality ceramic fiber yarn. It is lightweight, flexible, and available in a wide variety of thicknesses, widths and densities. There are certain organic fibers in the cloth, it would get black with the heating process, and won't affect the insulation effect. With the temperature raising, the cloth will get back to white, it means the organic fibers are totally burnt. CCEWOOL® classic series ceramic fiber cloth has two types: inconel wire reinforced and glass filament reinforced.



**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 AND SPECIFICATION**

<b>CCEWOOL® Classic series Ceramic Fiber Cloth</b>		
Classification Temperature (°C)	1260	
Name	Glass Filament Reinforced Cloth	Inconel Wire Reinforced Cloth
Density (kg/m³)	500	
Long-term Operation Temp (°C)	550	1050
Water Content	≤2	
Organic Content (%)	≤15	
Shrinkage at 982°C (%)	-1	
Packing of ceramic rope	Braided Bag	
	Size (TXWXL)	
	2mm x 1m x 30m	
	3mm x 1m x 30m	
	5mm x 1m x 20m	
	6mm x 1m x 20m	

**CCEWOOL® Classic series Ceramic fiber tape**

Temperature degree: 1260°C (2300°F)

CCEWOOL® classic series ceramic fiber tapes are fabricated using high quality ceramic fiber yarn and reinforced with glass filament & inconel wire. It can be typically used as refractory, fireproof and insulation materials in various heat equipment and heat conduction system.



**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 AND SPECIFICATION**

**CCEWOOL® Classic series Ceramic Fiber Tape**

Classification Temperature (°C)	1260	
Name	Glass Filament Reinforced Tape	Inconel Wire Reinforced Tape
Density (kg/m³)	500	
Long-term Operation Temp (°C)	550°C	1050°C
Water Content (%)	≤2	
Organic Content (%)	≤15	
Shrinkage at 982°C (%)	-1	
Packing of ceramic rope	Braided Bag	

**Size (TXWXL)**

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® Classic series**

**Ceramic fiber rope**

Temperature degree: 1260°C (2300°F)

CCEWOOL® classic series ceramic fiber rope is made from high quality ceramic fiber bulk, adding light yarn through special technology. It can be divided into twisted rope, square rope and round rope. According to different working temperature and applications to add glass filament and inconel as reinforced materials, it is typically used in high temperature and high pressure pump and valve as seals, mainly for insulation application.



**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 AND SPECIFICATION**

**CCEWOOL® Classic series Ceramic Fiber Rope**

Classification Temperature (°C)	1260	
Name	Glass Filament Reinforced Rope	Inconel Wire Reinforced Rope
Density (kg/m³)	500-600	
Long-term Operation Temp (°C)	550°C	1050°C
Water Content	≤2	
Organic Content (%)	≤15	
Shrinkage at 982°C (%)	-1	
Packing of ceramic rope	Braided Bag	

Ceramic fiber round rope	Diameter: 5-150mm
Ceramic fiber square rope	Size: 5-150mm
Ceramic fiber twisted rope	Diameter: 3-50mm



**CCEWOOL®**  
THERMOMAX  
REFRACTORY FIBER

**CCEWOOL®** Vacuum Formed Shapes  
Ceramic fiber

CCEWOOL® Vacuum Formed Shapes Ceramic Fiber is made from high quality 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® Vacuum Formed Shapes 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, light-weight 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.

Temperature range: 1260°C (2300°F)-1430°C(2600°F)

**CLASSIC SERIES**

Super insulation, more stable, more energy efficient

**CCEWOOL®**  
THERMOMAX  
REFRACTORY FIBER

**CCEWOOL® Classic series**  
Vacuum Formed Shapes Ceramic fiber

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

CCEWOOL® classic series vacuum formed shapes products in a variety of sizes and shapes, including tubular, conical, dome-shaped and box-shaped, most of which can be customized according to the customer's requirements, while some unshaped products will kept in stock for customers, such as casting cap and casing pipe for non-ferrous metal industry, as well as vacuum formed kiln eye for petrochemical industry. Vacuum forming hardener or refractory clay coating can be used to shaped products as a protective layer as per customers requirement



TECHNICAL DATA AND SPECIFICATION

CCEWOOL® Classic series Vacuum Formed Shapes Ceramic Fiber				
Item	1260 STD	1260 HP	1400	1430 HZ
Classification Temperature	1050°C	1100°C	1200°C	1350°C
Density (kg/m³)	300, 320, 350			
Permanent Linear Shrinkage (%)				
@1000°C,24hrs	2.8	-	-	-
@1100°C,24hrs	-	2.8	2	-
@1200°C,24hrs	-	-	2.6	1.9
@1300°C,24hrs	-	-	-	2.5
Thermal Conductivity (W/(m·k))				
800°C	0.13	0.13	0.12	0.16
1000°C	0.19	0.19	0.2	0.2
Chemical Composition (%)				
Al <sub>2</sub> O <sub>3</sub>	46	47-49	52-55	39-40
Al <sub>2</sub> O <sub>3</sub> + SiO <sub>2</sub>	97	99	99	-
ZrO <sub>2</sub>	-	-	-	15-17
Al <sub>2</sub> O <sub>3</sub> + SiO <sub>2</sub> + ZrO <sub>2</sub>	-	-	-	99
Fe <sub>2</sub> O <sub>3</sub>	≤1.0	0.2	0.2	0.2
Na <sub>2</sub> O + K <sub>2</sub> O	≤0.5	0.2	0.2	0.2
Specifications(mm)	Manufactured based on drawing provided by customer			
Packing	Carton or Wooded Box			

CHARACTERISTICS

- ☆Low heat capacity;
- ☆Low thermal conductivity;
- ☆Excellent thermal stability;
- ☆Excellent thermal shock resistance;
- ☆Excellent anti-wind corrosion;

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



**CCEWOOL®**  
THERMOMAX  
REFRACTORY FIBER

**CCEWOOL® Ecological fiber**

CCEWOOL® Ecological fiber is made from alkaline earth silicate fiber, including ecological blanket, board, paper, yarn, cloth, tape and rope. Ecological fiber is a body soluble fiber and can be absorbed, the color is bluish, is a new type eco-friendly insulation material. Temperature degree: 1200°C.

**CCEWOOL®**

THERMOMAX  
REFRACTORY FIBER

**CCEWOOL® Ecological fiber blanket**

Temperature degree: 1200°C.

CCEWOOL® ecological fiber blanket is made from alkaline earth silicate fiber, which is developed from a calcium, magnesium, silicate chemistry to provide thermal insulation. Due to it can be soluble in body's fluid, it is also named of soluble fiber. This special fiber is made from a blend of calcium, silica and magnesium which give fiber the ability to support continuous temperatures up to 1200°C.



**TECHNICAL DATA AND SPECIFICATION**

CCEWOOL® Ecological Fiber Blanket					
Classification temperature	1200 °C				
Density kg/m <sup>3</sup>	96	128	160		
Tensile strength Kg/m <sup>3</sup> , EN1094-1 kPa					
	128kg/m <sup>3</sup>	75			
Permanent linear change on reheating, %, EN1091-1					
After24hours @1000°C	1.5				
Thermal conductivity, W/m.K ASTMC-201					
temperature@400°C	0.1				
@600°C	0.15				
@800°C	0.2				
@1000°C	0.28				
Max short term exposure	1200 °C				
Operation temperature	1000 °C				
Melting point	1270 °C				
Chemical composition(%)					
SiO <sub>2</sub>	65-68				
CaO	27-33				
MgO	2-7				
Others	0-1				

Thickness	Density kg/m <sup>3</sup>			Length	Width
	mm	96	128		
13	√	√	○	14640	610, 1220
19	√	√	○	9760	
25	√	√	√	7320	
38	√	√	√	4880	
50	√	√	-	3660	

**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

Note: (○) and 1220mm width can be customized according to customer (order amount should not be less than the minimum order quantity)  
(√) for conventional products

**CCEWOOL® Ecological fiber board**

Temperature degree: 1200°C

CCEWOOL® ecological fiber board is rigid board using CCEWOOL® ecological fiber bulk with organic and inorganic binder. CCEWOOL® ecological fiber board is able to contact with fire directly and can be cut into different size. Low thermal conductivity, low heat storage and excellent resistance to thermal shock allow this product to be used in a wide range of application where temperature changes fast.



**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

**TECHNICAL DATA AND SPECIFICATION**

CCEWOOL® Ecological Fiber board		
Classification temperature	1200 °C	
Density kg/m³	300. 320. 350	
Max short term exposure	1200 °C	
Operation temperature	1000 °C	
Melting point	1270 °C	
Permanent linear change on reheating, %, EN1091-1		
After 2 hours heating @600°C	0.15	
@800°C	0.35	
@1000°C	0.35	
Thermal conductivity, W/m.K ASTMC-201		
temperature @200°C	0.07	
@400°C	0.1	
@600°C	0.15	
@800°C	0.19	
Chemical composition(%)		
SiO <sub>2</sub>	65-68	
CaO	27-33	
MgO	2-7	
Others	0-1	
Comm Size (mm)	L x W	1200x1000;1200x600; 1000X1000;1000X600; 900x600; 600x300
	Thickness	10-80
Packing		Inner Plastic Bag + Outer pallet or Carton

**CCEWOOL® Ecological fiber paper**

Temperature degree: 1200°C

CCEWOOL® ecological fiber paper is made from alkaline earth silicate fiber consisting SiO<sub>2</sub>, MgO, CaO with certain organic binders. We supply soluble paper whose thickness is from 1mm to 12mm, which can be used in many applications at temperatures up to 1200°C.



**CHARACTERISTICS**

- ☆The color is bluish
- ☆Max temperature up to 1200C
- ☆Wont cause any uncomfortable feelings contacting with skin

**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 AND SPECIFICATION**

CCEWOOL® Ecological Fiber Paper	
Classification temperature	1200 °C
Density, Kg/m³	190-210
Operation temperature	1000°C
Melting point	>1300°C
Tensile strength(Kpa)	>250
Loss on ignition (wt%)	9
Permanent Linear shrinkage, % ENV(1094-1)	
After 24 hours @1000°C	1.5
Thermal conductivity (%)	
400°C	0.1
600°C	0.16
800°C	0.22
Chemical composition (%)	
SiO <sub>2</sub>	65-68
CaO+MgO	27-33
others	<=3%
Comm size (MM)	60000*610*1;30000*610*2
	20000*610*3;15000*610*4
	12000*610*5;10000*610*6
	Min Width: 50
Package	Inner Plastic Bag+Outer Carton

**CCEWOOL® Ecological fiber yarn**

CCEWOOL® Ecological fiber yarn is yarn-shape high-temperature products which composed of ecological fibers blended with certain percentage organic bulk, reinforced with fiberglass or inconel wire.

**APPLICATIONS**

- ☆ Stitching fireproof cloth.

**CHARACTERISTICS**

- ☆ New type of low-carbon, environmental friendly and energy-saving product; no pollution or carcinogenic material was included.
- ☆ Good thermal stability, unaffected by thermal shock.
- ☆ Block infra-red radiation, good corrosion resistance.
- ☆ Good fiber flexibility
- ☆ Biodegradable, industrial wastes do not have to deal with.



**TECHNICAL DATA AND SPECIFICATION**

CCEWOOL® Ecological fiber yarn (Inconel Wire Reinforced / Glass Fiber Reinforced)	
Standard size	Tex: 525-2250
Common size	Tex: 525, 630, 780, 830, 1000, 2250
Color	Bluish
Temperature	1200°C

**CCEWOOL® Ecological fiber cloth**

CCEWOOL® Ecological fiber cloth is woven cloth-shape high temperature products composed of ecological fibers, suitable for 1200C high temperature application. Each ecological yarn is reinforced with glass filament or inconel wire. A few binders will be burnt at a low temperature, thus it won't affect the insulation effect.

**CHARACTERISTICS**

- ☆ New type of low-carbon, environmental friendly and energy-saving product; no pollution or carcinogenic material was included.
- ☆ Good thermal stability, unaffected by thermal shock.
- ☆ Block infra-red radiation, good corrosion resistance.
- ☆ Good fiber flexibility
- ☆ Biodegradable, industrial wastes of this product do not need to be dealt with.

**APPLICATIONS**

- ☆ Expansion joints, protective blanket / curtains, welding blankets, heat shields, gaskets, pipes and cables and packaging.
- ☆ Widely used in welding, casting and aluminum plant, steel mills, boiler insulation and sealing, exhaust system, shipyards, refineries, power plants and chemical plants.

**TECHNICAL DATA AND SPECIFICATION**

CCEWOOL® Ecological fiber cloth	
Thickness	1.6-6mm
Width	1000 mm
Standard Length	30m
Color	Bluish
Temperature	1200 °C



**CCEWOOL® Ecological fiber tape**

CCEWOOL® Ecological fiber tape is woven tape-shape high temperature products composed of superior ecological fibers, suitable for 1000C high temperature application. Each ecological fiber yarn is reinforced with glass filament or inconel wire. A few binders will be burnt in a low temperature, thus it won't affect the insulation effect.

**CHARACTERISTICS**

- ☆New type of low-carbon, environmental friendly and energy-saving product; no pollution or carcinogenic material was included.
- ☆Good thermal stability, unaffected by thermal shock.
- ☆Block infra-red radiation, good corrosion resistance.
- ☆Good fiber flexibility
- ☆Biodegradable, industrial wastes do not have to deal with.

**APPLICATIONS**

- ☆Expansion joints, protective blanket / curtains, welding blankets, heat shields, gaskets, pipes and cables and packaging.
- ☆Widely used in welding, casting and aluminum plant, steel mills, boiler insulation and sealing, exhaust system, shipyards, refineries, power plants and chemical plants.



**TECHNICAL DATA AND SPECIFICATION**

CCEWOOL® Ecological fiber tape	
Thickness	1.6-6mm
Width	13-300mm
Standard Length	30m
Color	Bluish
Temperature	1200 °C

**CCEWOOL® Ecological fiber rope**

CCEWOOL® ecological fiber rope includes twisted rope, square rope and round rope, which is woven tape-shape high temperature products composed of unidirectional ecological fibers, suitable for 1200C high temperature application. Each ecological fiber yarn is reinforced with glass filament or inconel wire to reinforce the tensile strength of ropes. A few binders will be burnt in a low temperature, thus it won't affect the insulation effect.



**CHARACTERISTICS**

- ☆New type of low-carbon, environmental friendly and energy-saving product; no pollution or carcinogenic material was included.
- ☆Good thermal stability, unaffected by thermal shock.
- ☆Block infra-red radiation, good corrosion resistance.
- ☆Good fiber flexibility
- ☆Biodegradable, industrial wastes do not have to deal with.

**APPLICATIONS**

- ☆ Ovens, industrial furnaces, boilers, high-temperature expansion joints and cable sealing or filling material. Widely used in welding, casting and manufacturing aluminum, steel mills, boiler insulation and sealing, exhaust system, shipyards, refineries, power plants and chemical plants, but also be used as a tad-pole-shaped gasket core. Three kinds of rope are each suitable for different application. Twisted rope is soft, square braided rope and round braided rope are tight and strong.

**TECHNICAL DATA AND SPECIFICATION**

CCEWOOL® Ecological fiber rope	
Thickness	1.6-6mm
Diameter	10-100mm
Standard Length	30m
Color	Bluish
Temperature	1200 °C



**CCEWOOL®**  
THERMOMAX  
REFRACTORY FIBER

**CCEWOOL®** / *Rock wool*

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 basalt into 4 ~ 7µm 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 board is classified into five types: External insulation rock wool board; High compression strength flat roof insulation rock wool board; Curtain wall insulation rock wool board; Sandwich panel rock wool board; Rock wool blanket; Rock wool blanket with wire mesh.

**CCEWOOL®**  
THERMOMAX  
REFRACTORY FIBER

### CCEWOOL® External insulation rock wool board

CCEWOOL External insulation rock wool board are non-combustible with a melting point of approximately 1000°C. They are specially formulated for fire protection, thermal insulation and sound absorption.

CCEWOOL Rock wool boards are designed to be used in External Thermal Insulation Composite System on solid substrates such as concrete wall or brick wall of new buildings or retrofit of existing buildings. They have a combined property of high compression and tensile strength, low and consistent thermal conductivity, good water repellency and low water absorption.



#### CHARACTERISTICS

- ☆ Non-combustible and meets the highest fire classification rating.
- ☆ Does not produce burning droplets, promote flashover or release toxic gases during a fire.
- ☆ Compression and tensile strength meets the national standard.
- ☆ Excellent permeability and thermal properties assist the reduction of condensation built-up in the system.
- ☆ Water repellent and moisture resistant and is mostly made up of inorganic fibres.
- ☆ Dimensionally stable and does not shrink, warp or deform over time. excellent sound absorbing properties.
- ☆ Easy to cut and handle.
- ☆ Neutral or slightly alkaline and does not cause corrosion on fiber glass mesh and metal fixing.
- ☆ Fibres are non-toxic and fully safe for use.

#### TECHNICAL DATA AND SPECIFICATION

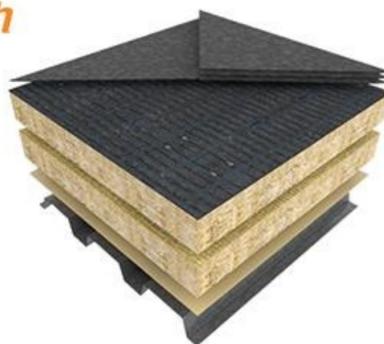
CCEWOOL External insulation rock wool board	
Density (kg/m <sup>3</sup> )	≥140±10
Heat Conductive Coefficient (w/m*k)	0.038
Shot content (%)	6.3
Fiber Mean Value (µm)	5.0
Acidity coefficient	1.8
Nonflammable	Grade A1
Melting point (°C)	≥1000
Water repellent (%)	99.5
Dimensional stability (%)	0.0
Compressive strength (kPa)	≥60
Rupture Strength (kPa)	≥10

length	1200mm	+10/-3
width	600mm	+5/-3mm
thickness	30mm-150mm	±3mm
density	140kg/m <sup>3</sup> -180kg/m <sup>3</sup>	±10kg/m <sup>3</sup>

## CCEWOOL® High compression strength Flat roof insulation rock wool board

CCEWOOL High compression strength Flat roof insulation rock wool board provides one stop solution to roofing insulation requirements. They are suitable for new and re-roofing applications on metal deck or concrete deck.

It has proven track records in various international projects.



### CHARACTERISTICS

- ☆ Excellent Mechanical Strength
- ☆ Fire proof
- ☆ Thermal insulation
- ☆ Acoustic insulation
- ☆ Dimensional Stability



### TECHNICAL DATA AND SPECIFICATION

CCEWOOL High compression strength Flat roof insulation rock wool board	
Density (kg/m <sup>3</sup> )	≥140±10
Heat Conductive Coefficient (w/m*k)	0.038
Shot content (%)	6.3
Fiber Mean Value (µm)	5.0
Acidity coefficient	1.8
Nonflammable	Grade A1
Melting point (°C)	≥1000
Water repellent (%)	99.5
Dimensional stability (%)	0.0
Compressive strength (kPa)	≥60
Rupture Strength (kPa)	≥10

length	1200mm	+10/-3
width	600mm	+5/-3mm
thickness	30mm-150mm	±3mm
density	140kg/m <sup>3</sup> -180kg/m <sup>3</sup>	±10kg/m <sup>3</sup>

## CCEWOOL® Curtain wall insulation rock wool board

CCEWOOL Curtain wall rock wool board is specially developed to meet the fire protection requirement of curtain wall buildings. Its unique formulated contents make the product slightly dark in color, ensure the stability of the fiber structure and provide a rigid surface when exposed directly to heat during a fire. The product has absolutely remarkable resistance to shrinkage at temperature encountered in fire conditions. It is used to seal the openings or gaps between the concrete floor slab and the curtain wall together with other well recognized fire-stopping products as a system. In an event of fire, this system will prevent fire spreading from one floor to another through the openings or gaps between the floor slab and curtain wall. The fire rating of the protected compartment can then be maintained.

### CHARACTERISTICS

- ☆ Contributes to excellent fire performance for curtain wall system and provides up to 2 hours fire rating.
- ☆ Non-combustible.
- ☆ CE & UL certified.
- ☆ Flexible, tested and used in conjunction with other major fire-stopping products as a perimeter fire sealing system.
- ☆ Available in various sizes and can be laminated with aluminium foil.
- ☆ Can be installed at site or prefabricated in the factory.
- ☆ Ease of installation with various installation options.
- ☆ Can be used for floor slab without upstand beam construction.



### TECHNICAL DATA AND SPECIFICATION

CCEWOOL Curtain wall insulation rock wool board	
Density (kg/m <sup>3</sup> )	≥80±10
Heat Conductive Coefficient (w/m*k)	0.038
Shot content (%)	6.3
Fiber Mean Value (µm)	5.0
Acidity coefficient	1.8
Nonflammable	Grade A1
Melting point (°C)	≥1000
Water repellent (%)	99.5
Dimensional stability (%)	0.0
Compressive strength (kPa)	≥60
Rupture Strength (kPa)	≥10

length	1200mm	+10/-3
width	600mm	+5/-3mm
thickness	30mm-150mm	±3mm
density	80kg/m <sup>3</sup> -140kg/m <sup>3</sup>	±10kg/m <sup>3</sup>

**CCEWOOL® Sandwich panel  
rock wool board**

CCEWOOL Sandwich panel insulation rock wool board is specifically designed for use as insulation core for metal faced composite panels which are commonly used for external wall, roof, partition, etc. in commercial, industrial and public buildings.



**CHARACTERISTICS**

- ☆ Fireproof
- ☆ Strong mechanical strength
- ☆ Consistent thermal properties
- ☆ Water resistant
- ☆ Excellent acoustic insulation
- ☆ Environmental friendly and safe to use
- ☆ Easy to handle and process



**TECHNICAL DATA AND SPECIFICATION**

<b>CCEWOOL Sandwich panel rock wool board</b>	
Density (kg/m <sup>3</sup> )	≥50±10
Heat Conductive Coefficient (w/m*k)	0.038
Shot content (%)	6.3
Fiber Mean Value (µm)	5.0
Acidity coefficient	1.8
Nonflammable	Grade A1
Melting point (°C)	≥1000
Water repellent (%)	99.5
Dimensional stability (%)	0.0
Compressive strength (kPa)	≥60
Rupture Strength (kPa)	≥10

length	1200mm	+10/-3
width	30mm-150mm	±3mm
thickness	20mm-300mm	±1mm
density	50kg/m <sup>3</sup> -180kg/m <sup>3</sup>	±10kg/m <sup>3</sup>

**CCEWOOL® Rock wool blanket**

CCEWOOL Rock wool blanket are made of natural stone. The selected stone are melted in a cupola at approximately 1450 °C, and the molten lava is fiberized by a spinner. The fibers are then coated with a thermosetting binder which bonds the fibers into a mat. The mat is then cut into suitable sizes for ease of handling and installation. Other products such as wired blanket, pipe cover or faced products are produced by secondary processes.

It complies with CE standards, ASTM C592 and JIS A9504.

CCEWOOL Rock wool blanket is particularly designed to meet the specific thermal insulation, fire protection and sound insulation requirements for large process pipework, tanks, vessels, boilers and ducts.

**CHARACTERISTICS**

- ☆ Non-combustible and meets the highest fire classification rating.
- ☆ No burning droplets, promote flashover or release toxic gases during a fire.
- ☆ Compression and tensile strength meets the national standard.
- ☆ Excellent permeability and thermal properties assist the reduction of condensation built-up in the system.
- ☆ Water repellent and moisture resistant and is mostly made up of inorganic fibres.
- ☆ Dimensionally stable and does not shrink, warp or deform over time. excellent sound absorbing properties.
- ☆ Easy to cut and handle.
- ☆ Neutral or slightly alkaline and does not cause corrosion on fiber glass mesh and metal fixing.
- ☆ Fibres are non-toxic and fully safe for use.



**TECHNICAL DATA AND SPECIFICATION**

<b>CCEWOOL Rock wool blanket</b>	
Density (kg/m <sup>3</sup> )	≥50
Heat Conductive Coefficient (w/m*k)	0.042
Shot content (%)	6.3
Fiber Mean Value (µm)	5.0
Organics content (ppm)	2.9
Nonflammable	Grade A1
Sound absorption coefficient	0.72
Temp for shrinkage under hot load (°C)	99.5

length	3000mm-5000mm	+10/-5mm
width	600mm or 630mm	+10/-5mm
thickness	30mm-100mm	+10/-3mm
density	50kg/m <sup>3</sup> -100kg/m <sup>3</sup>	±15kg/m <sup>3</sup>

**CCEWOOL® Rock wool blanket with wire mesh**

CCEWOOL Rock wool blanket are made of natural stone. The selected stone are melted in a cupola at approximately 1450 °C, and the molten lava is fiberized by a spinner. The fibers are then coated with a thermosetting binder which bonds the fibers into a mat. The mat is then cut into suitable sizes for ease of handling and installation. Other products such as wired blanket, pipe cover or faced products are produced by secondary processes.

It complies with CE standards, ASTM C592 and JIS A9504.

CCEWOOL Rock wool blanket is particularly designed to meet the specific thermal insulation, fire protection and sound insulation requirements for large process pipework, tanks, vessels, boilers and ducts.

**CHARACTERISTICS**

- ☆ Non-combustible and meets the highest fire classification rating.
- ☆ No burning droplets, promote flashover or release toxic gases during a fire.
- ☆ Compression and tensile strength meets the national standard.
- ☆ Excellent permeability and thermal properties assist the reduction of condensation built-up in the system.
- ☆ Water repellent and moisture resistant and is mostly made up of inorganic fibres.
- ☆ Dimensionally stable and does not shrink, warp or deform over time. excellent sound absorbing properties.
- ☆ Easy to cut and handle.
- ☆ Neutral or slightly alkaline and does not cause corrosion on fiber glass mesh and metal fixing.
- ☆ Fibres are non-toxic and fully safe for use.



**TECHNICAL DATA AND SPECIFICATION**

<b>CCEWOOL Rock wool blanket with wire mesh</b>	
Density (kg/m <sup>3</sup> )	≥50
Heat Conductive Coefficient (w/m*k)	0.042
Shot content (%)	6.3
Fiber Mean Value (µm)	5.0
Organics content (ppm)	2.9
Nonflammable	Grade A1
Sound absorption coefficient	0.72
Temp for shrinkage under hot load (°C)	99.5

length	3000mm-5000mm	+10/-5mm
width	600mm or 630mm	+10/-5mm
thickness	30mm-100mm	+10/-3mm
density	50kg/m <sup>3</sup> -100kg/m <sup>3</sup>	±15kg/m <sup>3</sup>



**CCEWOOL®**  
**THERMOMAX  
REFRACTORY FIBER**

**CCEWOOL® Insulating fire brick**

CCEWOOL® insulating fire brick is a lightweight refractory & insulation material, made from alumina material, including CCEWOOL® DJM series Mullite insulating fire brick, CCEWOOL® LHA Series Insulating fire brick, CCEWOOL® LCHA series Insulating fire brick and CCEWOOL® LI series Insulating fire brick. These products are all manufactured as per ASTM & JIS standard. Temperature range: 1200C to 1650C.



**CCEWOOL®** Refractory mortar

CCEWOOL® refractory mortar, adopting the same material powder and add binder, moisturize, additive and formed particular from special sorted Power made from the identical raw materials and classification temperatures in light with the brick utilized in furnace and their refractory grades. It can maintain stable binding property in high temperature, which can be directly used as binders of refractory brick, insulating brick and ceramic fibers. Refractory mortar is a kind of dry powder mortar, that is, to mix the powder and addictive and pack them with plastic woven bags. After soaked and stirred evenly, it can be put into use.

CCEWOOL® Refractory mortar is a high temperature, air-setting mortar used as an adhesive to securely bind refractory material, which can be used into binding refractory brick, insulating brick and ceramic fibers. There are two types: dry powder mortar, which is mix the powder and addictive and pack them with plastic woven bags. After soaked and stirred evenly, it can be put into use; other type is liquid status, which can be directly used without other process



**CHARACTERISTICS**

★ High temperature resistance, strong adhesion and good storage stability, viscosity can be adjusted according to construction requirements to facilitate construction.

**APPLICATIONS**

★ Bond between fiber products, paste bricks (or refractory concrete wall) with the surface of the furnace shell plate.  
★ Paste insulating bricks

**TECHNICAL DATA AND SPECIFICATION**

Item	Index
Al <sub>2</sub> O <sub>3</sub> %	≥42
Fe <sub>2</sub> O <sub>3</sub> %	≤2.0
Max temperature	1300℃
Bonding time	1-3min
Bonding strength	110℃*24h ≥5MPa
	1100℃ after-burning ≥7MPa
Modulus of Rupture	≥6MPa

**Various binders' using process:**

- A** Surface (wall bricks or refractory concrete wall) must be treated to remove surface oil, fouling, iron oxide or slag precision instrument and wetting the surface with diluted adhesive.
- B** Daub a layer of adhesive at the surface of fiber products
- C** To smear the fiber products or insulation bricks pasted on the wall.
- D** Pack down hard with plate pat



**CCEWOOL®**  
**CCEWOOL®**  
**THERMOMAX**  
**REFRACTORY FIBER**

**Refractory  
hardener**

CCEWOOL® refractory hardener is mainly used in coating the surface of ceramic fiber module and ceramic fiber board to enhance anti-air scour property. This product is characterized with high temperature resistance, good thermal stability and good energy saving effect, thus to extend the furnace service life.



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**CCEWOOL®**

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REFRACTORY FIBER**

**CCEWOOL® Refractory hardener**

CCEWOOL® refractory hardener is made from ceramic fibers with some organic, inorganic binders, additives as well.



**CHARACTERISTICS**

- ☆ Low bulk density, good strength after firing.
- ☆ Clay-like product, good workability
- ☆ Excellent insulation properties
- ☆ Excellent thermal shock resistance
- ☆ Excellent thermal stability
- ☆ Strong resistance to reducing atmosphere

**APPLICATIONS**

- ☆ The product is painted on the flamed layer of heating furnace' lining among metallurgy, petro chemistry and many other industries.
- ☆ The product is painted on the flamed layer of thermal treatment furnace among machinery, module and some other industries.
- ☆ The product is painted on the surface of all kinds of heating furnace or heating machine.

**TECHNICAL DATA AND SPECIFICATION**

<b>CCEWOOL® Refractory hardener</b>	
Appearance	Sticky putty
Temperature Grade °C	1260
Operating Temp. °C	1100
Solids(%)	55
Wet Density(lb/ft3)	85
Dry Density(lb/ft3)	50
Dry Mor(psi)	50
LOI(%)	5
Shrinkage(%) (24hrs)	4@1000°C