

Rail - Critical Data Recorders

Utilizing our product innovations, we introduce Vacuum Formed Components and microporous thermal insulation products into critical data recorders required for the railway industry's cargo and personnel.



CCEWOOL® Ceramic Fiber Shapes



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

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.

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.

Application:

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;

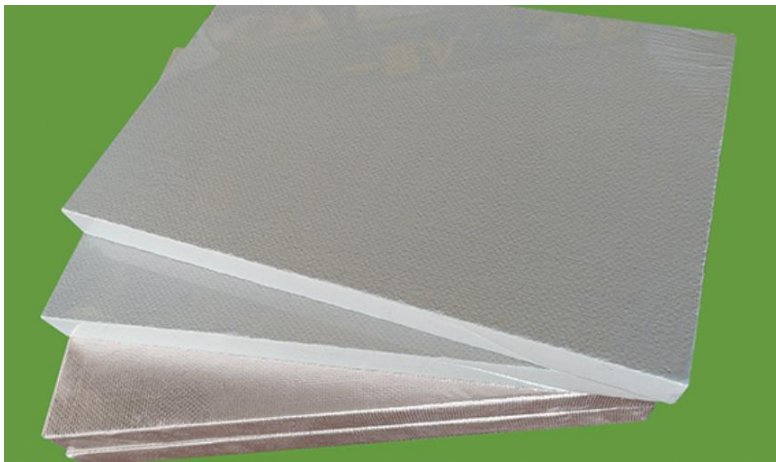
Lining for pad, cap, of found, electrical equipment connect gaskets.

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CCEWOOL® Ceramic Fiber Shapes					
fireproof chimney pipe insulation		1260S	1260HPS	1400	1430Zr
Density(KG/m ³)		280-400	280-400	280-400	280-400
320kg/m ³ /at(°C/24h)		≤1.5	≤1.5	≤1.5	≤1.5
Linear Shrinkage Rate(%)		-1000	-1000	-1100	-1200
Flexural strength(mpa)		≥0.6	≥0.6	≥0.6	≥0.6
Thermal Conductivity Rate(W/m.k)	400°C	0.08	0.08	-	-
	600°C	0.15	0.15	0.14	0.12
	800°C	0.2	0.19	0.18	0.16
	1000°C	-	-	0.21	0.19
Chemical Composition (%)	Al ₂ O ₃	44-46	47-49	52-55	38-43
	Al ₂ O ₃ +SiO ₂	≥99.0	≥99.0	≥99.0	-

	ZrO3	-	-	-	15-17
	Other	≤1.0	≤1.0	≤1.0	≤1.0

CCEWOOL® M60 Microporous Insulation Board



Temperature Grade: 600°C (1112°F)

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

Application:

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

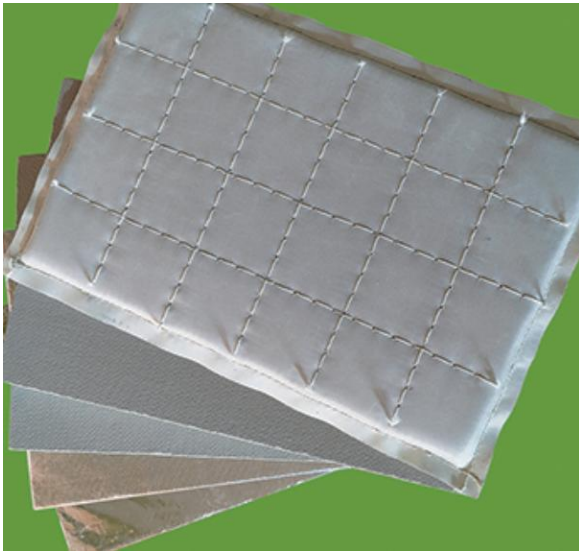
Permanent Lining For EAF Ladle

General Industrial Furnace etc.

TDS

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



Temperature Grade: 900°C (1652°F)

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

Application:

- 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

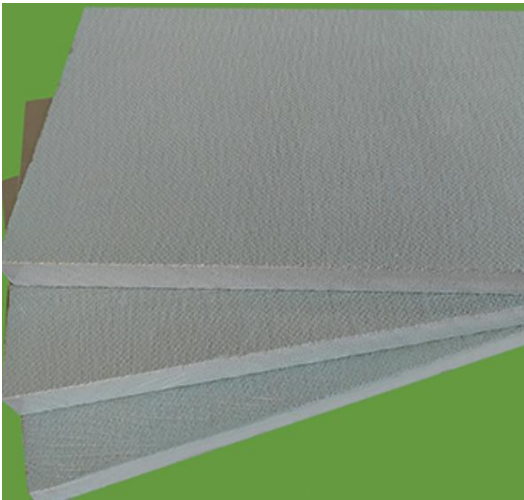
Permanent Lining For EAF Ladle

General Industrial Furnace etc.

TDS

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
	600 x 400 x (10-50)
Standard Size (mm)	1000 x 500 x (10-50)

CCEWOOL® M110 Microporous Insulation Board

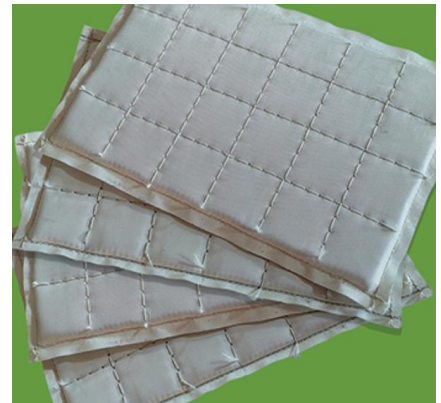


Temperature Grade: 1100°C (2012°F)

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.



Application:

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.

TDS

CCEWOOL® M110 Microporous Insulation Board	
Description	M110 Board
Recommended Temperature of Use (°C)	1100(2012°F)
Density (kg/m ³)	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

	600 x 400 x (10-50)
Standard Size (mm)	1000 x 500 x (10-50)

