

Petrochemical - Process Piping



Our solution improves the maintenance and congestion of process pipelines, reduces pedestrian obstruction, and provides a safer environment for personnel and equipment throughout their lifecycle.

CCEWOOL® Ceramic Fiber Wrap



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

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

Application:

- 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



TDS

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 (mm)	0.12			
Chemical Composition of refractory ceramic blanket (%)				
Al ₂ O ₃	≥44	≥44	≥44	≥35
SiO ₂	≥52	≥55	≥50	≥49
ZrO ₂	-	-	≥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/m3(4lb/ft3)	35	45	45	-
96kg/m3(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

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

Application:

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

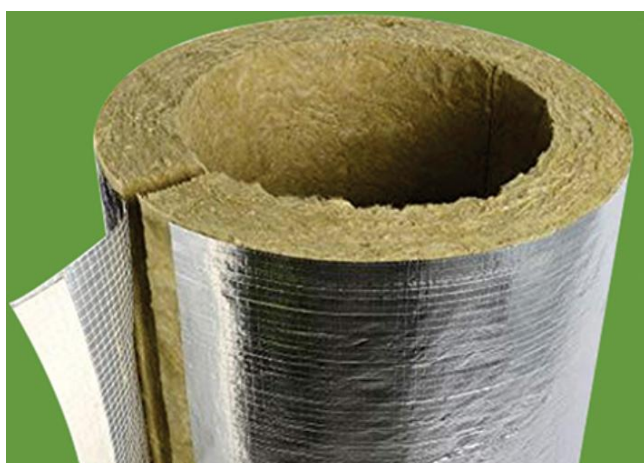
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CCEWOOL® Rock Wool Blanket		
Maximum Use Temperature (°C)	550	750



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 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

Application:

Pipe insulation for use in the construction and industrial sectors.

TDS

CCEWOOL® Rock Wool Pipe							
Properties	Unit	Density					
		80	100	120	140	150	160
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)≤1.0Long 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	

