

CCEWOOL® Water-Repellent Ceramic Fiber Blanket



Classification Temperature: 1100°C (2012°F),
1260°C (2300°F)

Chemical Composition: Alumina, Silica
CCEWOOL® Water-Repellent Ceramic Fiber Blanket is a high-performance refractory ceramic fiber blanket treated for water repellency and specifically designed for high-temperature insulation systems exposed to humid environments or condensation. During forming, the blanket is produced using our self-developed double-sided internal

needle-punching process to strengthen fiber interlocking and improve overall structural stability. The surface is then treated with a solvent-based, high-temperature nano water-repellent coating, providing uniform and durable water repellency throughout the fiber structure without compromising the product's refractory performance.

In humid or condensation-prone environments, CCEWOOL® Water-Repellent Ceramic Fiber Blanket helps reduce moisture penetration and its impact on thermal insulation performance, minimizing performance degradation and maintenance requirements caused by moisture exposure. While maintaining high-temperature resistance, it improves the long-term stability of the overall insulation system.

Characteristics:

- Excellent water repellency;
- High tensile strength;
- Excellent thermal shock resistance;
- Lightweight with low heat storage;
- Excellent chemical stability;
- Excellent thermal stability;
- Low thermal conductivity;
- Excellent thermal insulation performance;

Excellent sound absorption;
Compatible with multiple composite insulation structures.

Applications:

Insulation for jacketed steel beams and ventilation ducts;
Insulation for cables and wires in wall penetrations and conduits;
Fire protection for marine decks;
Acoustic insulation for ships and vehicles;
Fire-resistant and thermal insulation for walls, bulkheads, and exhaust systems in buildings and marine applications;
High-temperature flexible duct insulation;
Steam-tracing insulation;
Removable insulation covers for casting molds and equipment.

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CCEWOOL® Water-Repellent Ceramic Fiber Blanket		
Classification temperature	1100°C (2012°F)	1260°C (2300°F)
Operation Temp(°C)	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 (%)		
Al2O3	≥43	≥44
SiO2	≥52	≥52
ZrO2	-	-
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	mm
6	-	-	○	○	7200	610, 1220
13	-	√	√	○	14640	
19	-	√	√	○	9760	
25	○	√	√	√	7320	
38	○	√	√	√	4880	
50	○	√	√	-	3660	

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