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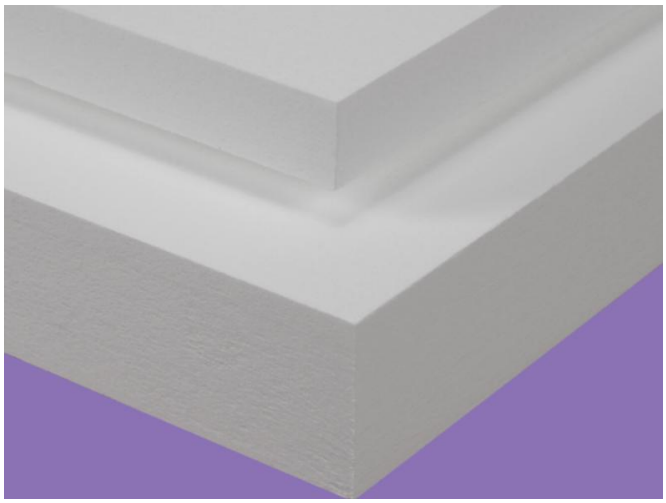
CCEWOOL® PCW Board 3452 for Fabrication



Temperature Grades 1900°C (3452°F)

CCEWOOL® PCW Board 3452 for Fabrication is an advanced polycrystalline wool (PCW) insulation board specifically developed for ultra-high temperature industrial and research equipment. The product is manufactured from high-purity polycrystalline mullite fibers using a wet vacuum forming process followed by high-temperature stabilization treatment. This manufacturing process produces a highly stable fiber structure capable of maintaining structural integrity in extreme temperature environments.

CCEWOOL® PCW Board 3452 for Fabrication belongs to the polycrystalline fiber board category. Compared with conventional industrial fiber boards, it offers significantly higher raw material purity and a more stable crystalline structure. Even under operating conditions up to 1900°C (3452°F), the material maintains very low thermal shrinkage and stable mechanical properties, making it suitable for ultra-high temperature experimental equipment and specialized industrial systems.

CCEWOOL® PCW Board 3452 also provides excellent Fabrication compatibility, allowing precise machining for engineered insulation components. The board can be cut, drilled, or mechanically processed to manufacture complex high-temperature structural parts. CCEWOOL® additionally offers Fabrication customization services, providing boards in custom thicknesses, dimensions, and special shapes according to engineering requirements and equipment designs.

Characteristics:

Engineering-grade polycrystalline fiber insulation board;

Ultra-high temperature stability up to 1900°C (3452°F);

Extremely low thermal shrinkage;

Excellent thermal shock resistance;

High mechanical strength and structural stability;

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Capable of direct flame exposure;

Minimal shot content and ultra-low dust generation;

Excellent Fabrication and machining capability.

Applications:

Ultra-high temperature laboratory furnaces;

Advanced materials research equipment;

Vacuum high-temperature furnaces;

Specialized ultra-high temperature furnace systems;

Aerospace thermal testing equipment;

High-temperature structural insulation components;

Ultra-high temperature insulation structures;

Custom high-temperature structural insulation parts.

TDS：

CCEWOOL® PCW Board 3452 for Fabrication					
Classification temp. °C (°F)	1500(2732)	1600(2912)	1700(3092)	1800(3272)	1900(3452)
Continuous duty temperature, °C(°F)	1350(2462)	1400(2732)	1500(2732)	1650(3000)	1800(3272)
Density approx. kg/m3	350/400	350/400	350	350/400	650/700
Linear shrinkage, %(24 hours at max. continuous duty temperature)					
1400°C	＜0.5				
1500°C		＜0.1			
1600°C			＜0.5		
1700°C				＜0.5	
1750°C					＜0.2
Chemical Composition (%)					
Al2O3	62	64	75	75	87
SiO2	37	35	24.5	24.5	12.5

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Other	＜1	＜1	＜0.5	＜0.5	＜0.5
Cr2O3	-	-	-	-	
Thermal conductivity, W/m.K					
600°C (1120°F)	0.11	0.14	0.12	0.12	0.11
800°C (1472°F)	0.15	0.17	0.15	0.16	0.14
1000°C (1832°F)	0.27	0.24	0.18	0.19	0.17