

## CCEWOOL® PCW Board 3092 for Fabrication



Temperature Grades 1700°C (3092°F)

CCEWOOL® PCW Board 3092 for Fabrication is an advanced polycrystalline wool (PCW) insulation board developed for high-temperature hot-face applications and environments exposed to high-velocity gas flow. The product is manufactured from high-purity polycrystalline fibers using a wet vacuum forming process followed by controlled high-temperature stabilization, resulting in a

stable crystalline fiber structure with excellent high-temperature performance.

CCEWOOL® PCW Board 3092 for Fabrication belongs to the polycrystalline fiber board category.

Compared with conventional industrial-grade fiber boards, it provides higher structural strength, improved dimensional accuracy, and significantly lower shrinkage at elevated temperatures. Under operating conditions up to 1700°C (3092°F), the board maintains excellent structural stability and demonstrates strong resistance to high-velocity gas flow erosion, making it suitable for hot-face areas or environments with intense thermal gas movement.

CCEWOOL® PCW Board 3092 also offers excellent Fabrication compatibility. Its uniform and dense fiber structure allows precise machining, including cutting, drilling, and shaping into engineered components such as burner blocks, flame baffles, and high-temperature insulation assemblies.

CCEWOOL® additionally provides Fabrication customization services, supplying boards in custom thicknesses, special shapes, and complex structural components according to equipment configurations or engineering drawings to meet the design requirements of high-temperature industrial systems.

### **Characteristics:**

Engineering-grade polycrystalline fiber insulation board;

Stable structure in operating temperatures up to 1700°C (3092°F);

Excellent resistance to high-velocity gas flow erosion;



High mechanical strength and modulus of rupture;  
Outstanding thermal shock resistance;  
Minimal shot content and ultra-low dust generation;  
Excellent Fabrication and machining capability.

**Applications:**

Hot-face insulation components for industrial furnaces;  
Combustion chamber structural parts;  
High-temperature gas flow erosion zones;  
Burner blocks and flame baffles;  
Furnace doors and flame deflection panels;  
High-temperature flues and hot gas ducts.

**TDS:**

<b>CCEWOOL® PCW Board 3092 for Fabrication</b>					
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

SiO <sub>2</sub>	37	35	24.5	24.5	12.5
Other	<1	<1	<0.5	<0.5	<0.5
Cr <sub>2</sub> O <sub>3</sub>	-	-	-	-	
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

