

## CCEWOOL® PCW Board 2912 for Fabrication



Temperature Grades 1600°C (2912°F)

CCEWOOL® PCW Board 2912 for Fabrication is a high-performance polycrystalline wool (PCW) insulation board developed for demanding high-temperature engineering applications. The product is manufactured from high-purity polycrystalline fibers using a wet vacuum forming process, creating a dense and uniform fiber structure throughout the board.

This structure enables the material to maintain excellent dimensional stability and structural integrity in operating environments up to 1600°C (2912°F).

This product belongs to the polycrystalline fiber board for Fabrication category. Compared with standard industrial-grade fiber boards, it features higher fiber purity, improved structural uniformity, and superior dimensional stability. As a result, the board exhibits lower thermal shrinkage and improved long-term stability under sustained high-temperature operating conditions.

CCEWOOL® PCW Board 2912 also offers excellent Fabrication compatibility. The dense and homogeneous board structure allows precise cutting, drilling, and machining, making it suitable for manufacturing a wide range of high-temperature insulation components. CCEWOOL® additionally provides Fabrication customization services, supplying boards in custom dimensions, thicknesses, or special shapes according to equipment structures or engineering drawings to meet the design requirements of high-temperature industrial systems.

### **Characteristics:**

Engineering-grade polycrystalline fiber insulation board with superior quality;

Stable structure in operating temperatures up to 1600°C (2912°F);

High mechanical strength and structural rigidity;

Low thermal conductivity and low heat storage;



Excellent thermal shock resistance;

Minimal shot content and ultra-low dust generation;

Excellent Fabrication and machining capability.

**Applications:**

High-temperature laboratory furnaces;

Experimental thermal processing equipment;

Insulation structural components for industrial furnaces;

Back-up insulation behind dense refractory linings;

High-temperature insulation panels;

Furnace doors and structural insulation assemblies.

**STD:**

<b>CCEWOOL® PCW Board 2912 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/m <sup>3</sup>	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 (%)					
Al <sub>2</sub> O <sub>3</sub>	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