

CCEWOOL® Vacuum-Formed Polycrystalline Wool Shapes

Classification Temperature: 1500°C (2732°F), 1600°C (2912°F), 1700°C (3092°F), 1800°C (3272°F)

Chemical Composition: Alumina, Silica

CCEWOOL® Vacuum-Formed Polycrystalline Wool Shapes are engineering-grade insulation components developed for ultra-high-temperature equipment and customized Fabrication applications. Made from high-quality polycrystalline wool, the products are manufactured through vacuum forming and can be customized according to temperature grade, equipment structure, and application requirements.

The product is available in 1500°C–1800°C grades, with continuous use temperatures up to approximately 1700°C. Its stable polycrystalline fiber structure provides low shrinkage, excellent dimensional stability, and good structural integrity at elevated temperatures, making it suitable for long-term high-temperature service and critical hot-face areas.

These products are not simply cut from standard boards. They are specifically developed for Fabrication customization and can be manufactured according to customer drawings, samples, or equipment structures into furnace chambers, sleeves, supports, thermal shields, end insulation components, and other complex shapes.

With excellent high-temperature stability, low thermal conductivity, and flexible Fabrication capability, CCEWOOL® Vacuum-Formed Polycrystalline Wool Shapes are widely used in laboratory furnaces, sintering furnaces, vacuum furnaces, ceramic kilns, glass furnaces, and other ultra-high-temperature industrial and research equipment.

Characteristics:

1500°C–1800°C temperature grades available;

Continuous use temperature up to approximately 1700°C;

Extremely low permanent linear shrinkage;

Excellent high-temperature dimensional stability;

Low thermal conductivity and low heat capacity;

Good mechanical strength and structural rigidity;
Excellent thermal shock resistance;
Stable structure at elevated temperatures;
Vacuum forming for complex shapes;
Precision Fabrication customization available;
Custom dimensions, density, and structures available according to drawings.

Applications:

Ultra-High-Temperature Laboratory Furnace Chambers and Insulation Structures

Used in laboratory electric furnaces, materials research furnaces, and high-temperature testing equipment for furnace chambers, linings, and thermal shields.

High-Temperature Sintering Furnaces and Heat-Treatment Equipment

Suitable for hot-face insulation and structural components in ceramic sintering, powder sintering, and other ultra-high-temperature heat-treatment systems.

Heating Element Support and Insulation Structures

Suitable for supporting, positioning, and insulating MoSi_2 heating elements, SiC heating elements, and high-temperature resistance heating systems.

Vacuum and Protective-Atmosphere Furnaces

Used for high-temperature insulation structures and custom-formed components in vacuum, inert-atmosphere, and protective-atmosphere furnaces.

Ceramic and Glass High-Temperature Equipment

Used in ceramic kilns and glass furnaces for localized hot-face areas, furnace openings, supports, and custom insulation components.

Burner and High-Temperature Gas Flow Areas

Can be customized for burner areas, hot-gas passages, and other localized high-temperature sections.

Furnace Doors, Openings, and Sealing Components

Used for customized thermal insulation and sealing structures around furnace doors, tube furnace ends, and other openings.

Other Ultra-High-Temperature Fabrication Components

Suitable for industrial and research equipment requiring complex geometries, high dimensional stability, and reliable long-term high-temperature performance.

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CCEWOOL® Vacuum-Formed Polycrystalline Wool Shapes				
Properties	PCW1500	PCW1600	PCW1700	PCW1800
Color	white	white	white	white
Classification Temperature (°C)	1500	1600	1700	1800
Continuous Use Temperature (°C)	1350	1400	1600	1700
Density (kg/m ³)	350	350/400	400	400
Permanent Linear Shrinkage, %,8 hours				
1400°C	<0.5			
1500°C		<0.1		
1600°C			<0.5	
1700°C				<0.5
Chemical Composition, %				
Alumina, Al ₂ O ₃	62	64	75	75
Silica, SiO ₂	37	35	24	24
Other	<1	<1	<1	<1
Thermal Conductivity, W/m·K				
600°C	0.11	0.14	0.12	0.12
800°C	0.15	0.17	0.15	0.16
1000°C	0.27	0.24	0.18	0.19