

CCEWOOL® PCW Shapes for Dental Porcelain Furnaces



Temperature Grades: 1500°C (2732°F), 1700°C (3092°F), 1800°C (3272°F)

CCEWOOL® polycrystalline fiber shapes for dental porcelain furnaces are manufactured from high-purity in-house produced polycrystalline fibers using a vacuum forming process, followed by precision CNC machining according to technical drawings. These components can be

custom-designed based on the heating curve and structural requirements of porcelain furnaces.

Specifically developed for dental porcelain furnaces and zirconia sintering equipment, the product provides stable thermal insulation performance and reliable structural support under high-temperature conditions.

When used in combination with silicon molybdenum (MoSi_2) heating elements, silicon carbide (SiC) heating elements, or high-temperature resistance wires, it enables stable sintering of zirconia dental materials. The system can also be equipped with sintering boxes for loading zirconia beads and zirconia blanks.

Characteristics:

Ultra-Low Shrinkage;

Excellent Thermal Insulation Performance;

Lightweight Structure;

Custom-Shaped Design;

Good Mechanical Stability;

Shot-Free Structure and High-Temperature Resistance.

Application:

Dental Porcelain Furnace Linings

Used for furnace covers, chamber insulation components, and structural support parts.



Heating Element Support and Insulation

Provides insulation and fixation for silicon molybdenum rods, silicon carbide rods, or resistance wire heating systems.

Zirconia Sintering Systems

Suitable for zirconia dental material sintering furnaces, improving temperature uniformity.

Sintering Boxes and Supporting Components

Used as structural components for loading zirconia beads and zirconia blanks during sintering.

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

