

CCEWOOL® Ultra-Thin Ceramic Fiber Board for Fabrication



Classification Temperature: 1260°C (2300°F), 1400°C (2550°F), 1430°C (2600°F)

Chemical Composition: Alumina, Silica, (Zirconia)

CCEWOOL® Ultra-Thin Ceramic Fiber Board for Fabrication is a high-performance board developed

for precision customized insulation structures. It is designed for electronics, electrical equipment, and other space-constrained applications with strict high-temperature control requirements. Rather than simply being a thinner version of standard board, it is developed specifically for Fabrication applications requiring ultra-thin profiles, dimensional accuracy, assembly consistency, and system integration.

The product is available in thicknesses from 3–10 mm and is manufactured using a fully automated continuous production line combined with CNC precision machining. Vacuum forming ensures uniform fiber distribution, allowing the board to maintain stable density, good compressive strength, thermal insulation performance, and structural stability even at very low thicknesses.

As a Fabrication product, CCEWOOL® Ultra-Thin Ceramic Fiber Board can be customized according to customer drawings, structural dimensions, and assembly requirements. It is suitable for ultra-thin shaped insulation parts, precision thermal insulation components, and customized high-temperature protection structures. Compared with secondary machining of conventional boards, it offers better dimensional consistency, assembly efficiency, and finished-product stability.

With its lightweight structure, dimensional accuracy, and reliable thermal insulation performance, CCEWOOL® Ultra-Thin Ceramic Fiber Board for Fabrication provides effective thermal protection in limited spaces and is well suited for precision, lightweight, and integrated insulation designs.

Characteristics:

Low heat capacity;
Low thermal conductivity;
Maintains structural stability at high temperatures;
Excellent electrical insulation;
Easy to machine and shape;
Excellent thermal shock and corrosion resistance;
High flexibility;
Low lead content;
Good high-temperature stability;
High-strength rigid board;
Good chemical stability.

Applications:

Thermal insulation for electrical control cabinets and transformers;
Backing insulation for electric heating elements and heating modules;
Thermal protection for battery packs and energy storage systems;
Thermal insulation structures for semiconductor and instrumentation equipment.

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CCEWOOL® Ultra-Thin Ceramic Fiber Board for Fabrication			
Classification Temperature	1260°C(2300°F)	1400°C (2550°F)	1430°C (2600°F)
Operation Temperature	1050°C(1922°F)	1200°C(2192°F)	1350°C(2462°F)
Color	white	white	white
Loss of Ignition (%)	≤6	≤6	≤6
Permanent Linear Shrinkage (%)	1050°Cx24h≤3.0	1200°Cx24h≤3.5	1350°Cx24h≤3.5
Modules of Rupture (MPa)	≥0.3	≥0.3	≥0.3
Thermal Conductivity (w/m.k)			

400°C	0.08	0.07	0.07
600°C	0.11	0.1	0.1
800°C	0.14	0.13	0.13
1000°C	0.19	0.19	0.18
Chemical Composition (%)			
Al ₂ O ₃	≥44	≥44	≥35
SiO ₂	≥52	≥50	≥49
ZrO ₂	-	≥5	≥15
Package	Carton box or pallet		

CCEWOOL® Ultra-Thin Ceramic Fiber Board for Fabrication	
Thickness (mm)	3-10
Density (kg/m ³)	300 - 400
Size (mm)	900×600 or customized size