

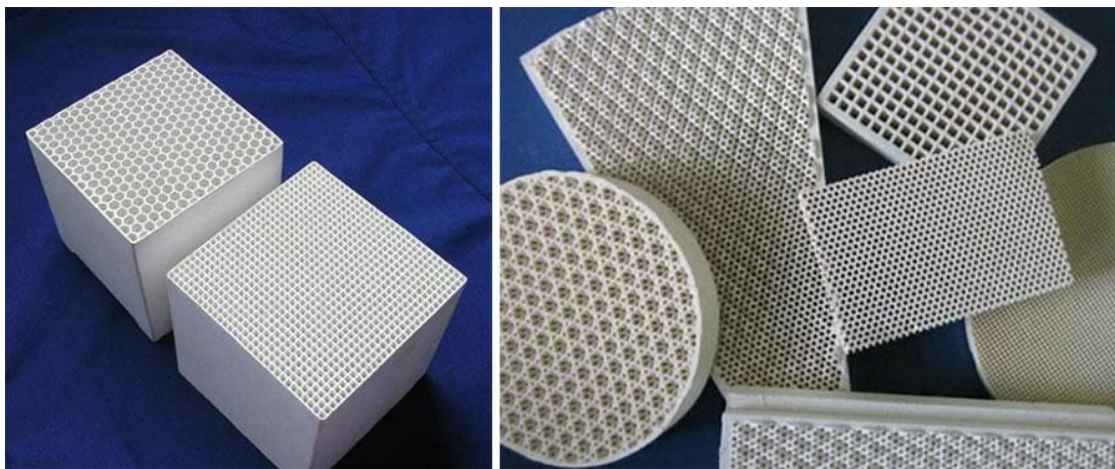


Cordierite Ceramic Honeycom

Nextgen Cordierite ceramic honeycomb, made of silicate ceramic ($Mg_2Al_4Si_5O_{18}$), is a commonly used structure ceramic material which has the advantages of energy-efficiency and high-temperature resistance. Nextgen Advanced Materials supplies Cordierite ceramic honeycombs with high quality and fast delivery and customized products are also available.

Product Description

As the professional manufacture, we would like to provide you Nextgen Cordierite Ceramic Honeycomb. Cordierite ceramic honeycomb is made of silicate ceramic ($Mg_2Al_4Si_5O_{18}$). Cordierite is a commonly used structure ceramic material which has the advantage of energy-efficiency and high-temperature resistance. Cordierite honeycomb is widely used on barbecue grill, burn oven, convection oven, gas oven, rotary oven, natural gas heater, space heater crucible and various heating equipment, etc.



Cordierite Honeycomb Specifications

Properties	Units	Test	Value
Physical			
Chemical Formula	–	–	$2MgO-2Al_2O_3-5SiO_2$
Density, r	g/cm ³	ASTM C20	2.60
Color	–	–	off-white
Crystal Structure	–	–	orthorhombic
Water Absorption	% @R.T.	ASTM C373	0.02 – 3.2
Hardness	Moh's	–	7

Hardness	knoop (kg/mm ²)	Knoop 100g	—
Mechanical			
Compressive Strength	MPa @ R.T.	ASTM C773	350
Tensile Strength	MPa @ R.T.	ACMA Test #4	25.5
Modulus of Elasticity (Young's Mod.)	GPa	ASTM C848	70
Flexural Strength (MOR)	MPa @ R.T.	ASTM F417	117
Poisson's Ratio, ν	—	ASTM C818	0.21
Fracture Toughness, K_{Ic}	MPa x m ^{1/2}	Notched Beam Test	—
Thermal			
Max. Use Temperature (* denotes inert atm.)	°C	No load cond.	1371
Thermal Shock Resistance	DT (°C)	Quenching	500
Thermal Conductivity	W/m-K @ R.T.	ASTM C408	3.0
Coefficient of Linear Thermal Expansion, α_l	mm/m-°C (~25°C through ±1000°C)	ASTM C372	1.7
Specific Heat, c_p	cal/g-°C @ R.T.	ASTM C351	0.35
Electrical			
Dielectric Constant	1MHz @ R.T.	ASTM D150	4.7
Dielectric Strength	kV/mm	ASTM D116	5.11
Electrical Resistivity	Wcm @ R.T.	ASTM D1829	1014