

Honeycomb Catalyst

Honeycomb Catalyst has low heat expansion coefficient, large surface area, good heat stability and anticorrosion

1、Product Description

Honeycomb Catalyst, has low heat expansion coefficient, large surface area, good heat stability and anticorrosion. It is the key and core components of regenerative high temperature combustion (HTAC technology). The product has been widely used in iron and steel, machinery, building materials, petrochemicals, nonferrous metals, smelting and other industries of all kinds of furnace, stove, heat treatment furnace, forging furnace, cracking furnace, melting furnace, soaking furnace, kiln baking etc. It can greatly save energy (typically 10%-70% energy), improve the thermal efficiency of thermal equipment, while reducing CO₂ emissions (10%-70%).

2、Physical & Chemical Properties

Item \ Type	Alumina	Mullite	Dense Cordierite	Porous Cordierite	Mullite-Cordierite	Corundum-Mullite
Al ₂ O ₃	48-55	66-72	32-36	32-37	55-65	20-26
SiO ₂	40-45	25-30	45-52	46-52	28-36	68-75
MgO			5-8	8-12	2.5-3.2	0.2-0.3
K ₂ O+Na ₂ O+CaO	4.0-5.5 ≤1.0		≤3.0	≤2.0	≤1.0	2.5-4.0
Density, g/cm ³	2.7	2.9	2.4-2.6	1.9-2.0	2.9-3.2	2.3-2.5
Coefficient of thermal expansion (20-1000 °C), ×10 ⁻⁶ ·°C	5-7	5.5-6.5	2.5-3.5	1.3-2.5	2.5-4.0	5-7
Heat capacity (20-1000 °C), j/kg·°C	800-900	1100-1300	800-1200	750-900	850-1100	840-920
Thermal conductivity (20-1000 °C) W/m·°C	1.5-2.5	1.5-2.0	1.5-2.58	1.3-1.5	1.5-2.3	1.0-1.2
Spalling resistance, °C	≥150	≥350	≥250	≥360	≥250	≥150
Max Working temp. °C	1300	1600	1300	1300	1400	1300