

CASI Nano Insulation Board

The CASI Nano Insulation Board is an advanced refractory insulation material engineered to replace traditional calcium silicate boards and ceramic fiber boards. It is manufactured from selected inorganic materials, including Al₂O₃, SiO₂, and CaO, through a fully automated continuous production line. This innovative board seamlessly combines the high strength of insulation bricks with the low thermal conductivity of ceramic fibers.

Key Features:

- **Exceptional Thermal Performance:** The CASI Nano Insulation Board offers ultra-low thermal conductivity, ensuring superior insulation and significant energy savings while maintaining stable furnace temperatures.
- **High Structural Integrity:** It resists shrinkage and pulverization under high-temperature conditions, maintaining the structural stability and minimizing heat loss of the insulation layer. This ensures that the insulation effectiveness does not degrade over long-term use.
- **Wide Application Temperature Range:** Suitable for use at temperatures ranging from 900°C to 1200°C, making it ideal for backup insulation lining in various industrial furnaces.
- **Fiber-Free Composition:** The board is completely free of fibers, preventing any powdering at high temperatures and ensuring a longer lifespan. This fiber-free nature also makes it safe for human health and environmentally friendly.

Application

Typical applications include backup insulation for metallurgical industry heat treatment furnaces, reheating furnaces, roller hearth kilns, ceramics kilns, rotary kilns, glass furnaces, electrolytic aluminum smelters, boilers, hot air ducts, building fireproofing, and insulation.

Items	Unit	CAS-B1000	CAS-B1050	CAS-B1050H	CAS-B1200	CAS-B1250
Bulk Density	g/cm ³	0.3	0.35	0.5	0.5	0.6
Cold Crushing Strength	MPa	≥0.4	≥0.6	≥1.8	≥0.8	≥1.2
Permanent Linear Change °Cx12h	%	±0.5 (950)	±0.5 (1000)	±0.5 (1000)	±0.5 (1100)	1 (1230)
Thermal Conductivity @400°C	W/m·K	≤0.105	≤0.105	≤0.11	≤0.115	≤0.09
SiO ₂	%	42	42	42	40	30
Al ₂ O ₃	%	15	15	15	13	10
CaO	%	37	37	37	43	50
Fe ₂ O ₃	%	≤0.8	≤0.8	≤0.8	≤0.8	≤0.8
Dimension	mm	Standard Size: 600mm*400mm*thickness (30~60mm) Other sizes can be customized if order quantity big enough.				

