

CCEFIRE® IFB23 Insulating Fire Brick



Temperature Grades: 2300°F (1260°C)

CCEFIRE® IFB23 Insulating Fire Brick is a lightweight mullite-based insulating refractory brick designed for thermal insulation in industrial furnaces and high-temperature equipment. The brick is manufactured using high-purity refractory clay as the primary raw

material. Carefully graded organic pore-forming additives are incorporated during production to create a uniform and controlled porous structure during high-temperature firing.

This engineered porous structure provides the brick with excellent thermal insulation properties and low thermal conductivity, allowing it to deliver reliable insulation performance in medium- to high-temperature industrial furnace environments.

Due to its lightweight porous structure, IFB23 insulating fire brick features low bulk density and low heat storage capacity, which helps reduce furnace heat loss and improve overall thermal efficiency. All six faces of the brick are precision machined to ensure tight dimensional tolerances, making installation easier while reducing the amount of refractory mortar required. This contributes to the formation of a stable and uniform furnace lining structure.

CCEFIRE® IFB23 insulating fire bricks also support Fabrication and custom refractory component manufacturing. The bricks can be processed according to customer drawings to produce specialized furnace components such as burner blocks, support bricks, insulation structures, and custom refractory assemblies. Through Fabrication processing, refractory materials can better match specific equipment designs, improving installation efficiency and optimizing furnace lining performance.

With good thermal stability and excellent thermal shock resistance, CCEFIRE® IFB23 insulating fire brick maintains structural integrity even under high-temperature operating conditions, making it a commonly used material for furnace insulation structures and custom refractory components in industrial equipment.

Characteristics:

Low Thermal Conductivity;

Low Density and Low Heat Storage;

Good Thermal Stability;

Excellent Thermal Shock Resistance;

Accurate Dimensions and Easy Installation;

Good Chemical Stability.

Application:

CCEFIRE® IFB23 Insulating Fire Brick is widely used in the insulation structures of various industrial furnaces and thermal equipment:

Metallurgical Industry

Hot blast stoves

Reheating furnaces

Annealing furnaces

Sintering furnaces

Non-Ferrous Metal Industry

Melting furnaces

Reduction furnaces

Roller hearth furnaces

Tube-type heating furnaces

Petrochemical Industry

Cracking furnaces

Process heaters

Flue gas treatment equipment

Ceramic Industry

Roller kilns

Tunnel kilns



Ceramic firing equipment

Glass Industry

Glass furnaces

High-temperature glass processing equipment

Power and Environmental Equipment

Boilers

Incinerators

Flue and duct insulation systems

TDS

CCEFIRE ® IFB Insulating Fire brick								
Item	IFB-23C	IFB-23	IFB-24	IFB-26	IFB-28	IFB-30	IFB-32	
Classification Temp(°C)	1260	1260	1300	1430	1540	1650	1760	
Bulk Density(g/cm3)	0.5	0.6	0.7	0.8	0.9	1	1.25	
Crushing Strength(MPa)	1.2	1.2	1.4	1.6	2.1	2.5	3.5	
Modulus of Rupture(MPa)	1	0.9	1.2	1.4	1.6	2.1	2.1	
Permanent linear change (CT-30°Cx24h)%	0.5	0.5	0.6	0.4	0.5	0.9	0.9	
Reversible thermal expansion at 1100°C	0.5	0.5	0.6	0.7	0.8	0.9	1.1	
Thermal conductivity (W/m.k)	400°C	0.12	0.12	0.14	0.27	0.32	0.41	0.49
	600°C	0.14	0.14	0.16	0.29	0.34	0.43	0.5
	800°C	0.16	0.17	0.18	0.31	0.36	0.44	0.51
	1000°C	0.18	0.19	0.2	0.33	0.38	0.45	0.53
	1200°C	-	-	-	0.3	0.41	0.47	0.56
Chemical Analysis(%)	Al2O3	37	37	44.5	58	67	73	77
	SiO2	47	44.4	41.2	39.1	31	25.1	21.5
	Fe2O3	0.7	0.7	0.7	0.7	0.6	0.5	0.4

Common size	230 x 114 x 65/75mm 9 "x 4.5" x 2.5"/3"
	or customized size

