

## CCEFIRE® IFB30 Insulating Fire Brick



Temperature Grades: 3000°F (1650°C)

CCEFIRE® IFB30 Insulating Fire Brick is a high-refractoriness lightweight mullite-based insulating refractory brick designed for high-temperature industrial furnace systems. The product is manufactured using high-purity refractory clay as the primary raw

material, with an optimized material composition that includes a higher alumina content to improve refractoriness and thermal stability.

During production, carefully graded organic pore-forming additives are incorporated into the brick body. These additives burn out completely during the firing process, creating a uniform and controlled porous structure. This engineered structure allows the IFB30 insulating fire brick to maintain a lightweight body while providing good mechanical strength and stable high-temperature performance.

Compared with medium-temperature insulating fire bricks, IFB30 maintains excellent dimensional stability and low thermal conductivity under higher operating temperatures. This helps reduce furnace heat loss and improves the overall thermal efficiency of kilns and industrial heating equipment.

Thanks to its higher refractoriness and stable structural properties, IFB30 insulating fire brick can be used in furnace chamber areas exposed to elevated temperatures. It can also serve as the hot-face insulation layer or as a backup insulation layer behind dense refractory materials in industrial furnace lining systems.

### **Characteristics:**

Higher Refractoriness for Elevated Temperature Zones;

High-Temperature Dimensional Stability;

Low Thermal Conductivity for Reduced Heat Loss;

Good Thermal Shock Resistance;



High Mechanical Strength.

**Application:**

CCEFIRE® IFB30 Insulating Fire Brick is primarily used in furnace lining structures and insulation layers of high-temperature industrial furnace systems, including:

**Industrial Furnaces and Reaction Equipment**

Industrial furnace chamber linings

Roasting furnaces

Reaction chambers

Stress-relief furnaces

**High-Temperature Thermal Equipment**

Flue and gas passage systems

Regenerators

Gas production equipment

High-temperature piping systems

**Metallurgical Industry**

High-temperature reheating furnaces

Hot blast stoves

Various metallurgical furnace lining structures

**Ceramics and Glass Industry**

Ceramic kiln linings

Glass furnace insulation structures

**Petrochemical Industry**

Cracking furnaces

Process heaters

High-temperature reaction equipment



**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							

