

## CCEFIRE® IFB32 Insulating Fire Brick



Temperature Grades: 3200°F (1760°C)

CCEFIRE® IFB32 Insulating Fire Brick is an ultra-high temperature lightweight mullite-based insulating refractory brick designed for insulation structures in high-temperature industrial furnaces and extreme thermal environments. The product is manufactured using high-purity refractory clay combined with

high-alumina raw materials. During production, carefully graded organic pore-forming additives are incorporated to create a uniform and stable porous structure during the firing process. This engineered structure allows the brick to maintain a lightweight body while providing good mechanical strength and excellent high-temperature stability.

Compared with medium- and lower-temperature insulating fire bricks, IFB32 offers significantly higher refractoriness and improved structural stability at elevated temperatures. It can operate for extended periods in high-temperature environments while maintaining low permanent linear shrinkage. The high-porosity structure also contributes to low thermal conductivity, effectively reducing furnace heat loss and improving the overall thermal efficiency of industrial furnace systems.

Due to its excellent high-temperature stability and insulation performance, IFB32 insulating fire brick is primarily used in critical insulation structures and high-temperature zones within industrial furnace systems, making it an important energy-saving insulation material for high-temperature thermal processing equipment.

### **Characteristics:**

Ultra-High Refractoriness;

Low Thermal Conductivity;



Low Heat Storage Capacity;

Excellent High-Temperature Structural Stability;

Excellent Thermal Shock Resistance.

**Application:**

CCEFIRE® IFB32 Insulating Fire Brick is primarily used in high-temperature industrial furnaces and thermal processing equipment, including:

**High-Temperature Industrial Furnaces**

High-temperature heat treatment furnaces

High-temperature reheating furnaces

Industrial reaction furnaces

**Petrochemical Equipment**

Cracking furnaces

Reforming furnaces

High-temperature reaction equipment

**Metallurgical Industry**

High-temperature furnace chambers

Hot blast stoves

Metallurgical furnace lining structures

**Ceramics and Glass Industry**

High-temperature ceramic sintering kilns

Glass furnace insulation structures

**Other High-Temperature Equipment**

Industrial electric furnaces

High-temperature piping systems

Insulation layers for thermal processing 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							

