

CCEFIRE® IFB28 Insulating Fire Brick



Temperature Grades: 2800°F (1540°C)

CCEFIRE® IFB28 Insulating Fire Brick is a high-refractoriness lightweight mullite-based insulating refractory brick designed for higher temperature industrial furnace lining systems.

Compared with medium-temperature

insulating bricks, IFB28 features a higher alumina content and improved refractoriness, allowing it to maintain stable structural performance under more demanding high-temperature operating conditions. The product is manufactured using high-purity refractory raw materials and a controlled pore-forming process. During firing, a uniform porous structure is formed, providing a lightweight body while maintaining good mechanical strength and thermal stability. The low thermal conductivity and low heat storage capacity effectively reduce furnace heat loss, thereby improving furnace operating efficiency and lowering overall energy consumption.

Thanks to its higher refractoriness and excellent thermal shock resistance, CCEFIRE® IFB28 Insulating Fire Brick can be used not only as a backup insulation material in furnace lining systems but also in selected high-temperature zones where additional insulation performance is required. Compared with medium-temperature insulating bricks, IFB28 is particularly suitable for furnace systems operating continuously at elevated temperatures.

With stable thermal performance, high refractoriness, and reliable structural properties, CCEFIRE® IFB28 Insulating Fire Brick is widely used in medium- to high-temperature industrial furnace systems across industries such as steel, petrochemical, non-ferrous metals, ceramics, and glass manufacturing.

Characteristics:

Very low thermal conductivity, providing excellent insulation performance;

Lightweight with high strength, offering good compressive strength and spalling resistance;



Stable high-temperature performance with low permanent linear shrinkage;

Excellent thermal stability under long-term high-temperature operation.

Application:

CCEFIRE® IFB28 Insulating Fire Brick is primarily used in insulation structures or localized high-temperature zones of medium- to high-temperature industrial furnaces:

Steel Industry

Heat treatment furnaces

Reheating furnaces

Hot blast stoves

Furnace doors and high-temperature furnace lining areas

Petrochemical Industry

Cracking furnaces

Tube-type heaters

Reforming furnaces

Non-Ferrous Metal Industry

Melting furnaces

Annealing furnaces

Electrolytic cell insulation structures

Ceramics and Building Materials Industry

Tunnel kilns

Roller kilns

Pusher kilns

Glass Industry

Glass melting furnaces

Regenerator insulation layers

Other High-Temperature Equipment

Electric furnace linings



High-temperature insulation layers in industrial furnaces

Fabrication-processed refractory components for furnace lining systems

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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/cm ³)		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(%)	Al ₂ O ₃	37	37	44.5	58	67	73	77
	SiO ₂	47	44.4	41.2	39.1	31	25.1	21.5
	Fe ₂ O ₃	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						