

# CALCINED BAUXITE

Calcined Bauxite is produced by sintering high-alumina bauxite in rotary, round or shaft kilns at high temperatures. This process of calcining (heating) bauxite in kilns removes moisture and gives Calcined Bauxite its high alumina content and heat-resistance, low iron, and grain hardness and toughness. Its thermal stability, high mechanical strength and resistance to molten slags make Calcined Bauxite an ideal raw material in the production of many refractory, abrasive and specialty product applications.



## ROTARY KILN AND ROUND KILN BAUXITE

$\text{Al}_2\text{O}_3\%$	$\text{Fe}_2\text{O}_3\%$	B.D.(g/cm <sup>3</sup> )	$\text{SiO}_2\%$	CaO+MgO%	$\text{Na}_2\text{O}+\text{K}_2\text{O}\%$	$\text{TiO}_2\%$
≥ 90	≤ 2	≥ 3.30	≤ 4	≤ 0.5	≤ 0.20	≤ 3.8
≥ 89	≤ 2	≥ 3.30	≤ 4.5	≤ 0.5	≤ 0.20	≤ 3.8
≥ 88	≤ 2	≥ 3.25	≤ 6	≤ 0.5	≤ 0.25	≤ 3.8
≥ 87	≤ 2	≥ 3.20	≤ 7	≤ 0.5	≤ 0.25	≤ 3.8
≥ 86	≤ 2	≥ 3.15	≤ 8	≤ 0.5	≤ 0.25	≤ 3.8
≥ 85	≤ 2	≥ 3.10	≤ 9	≤ 0.5	≤ 0.25	≤ 3.8
≥ 83	≤ 2	≥ 3.00	≤ 11	≤ 0.5	≤ 0.25	≤ 3.8
≥ 80	≤ 2	≥ 2.90	≤ 14	≤ 0.5	≤ 0.25	≤ 3.8
≥ 75	≤ 2	≥ 2.80	≤ 19	≤ 0.5	≤ 0.25	≤ 3.8

## SHAFT KILN BAUXITE

$\text{Al}_2\text{O}_3\%$	$\text{Fe}_2\text{O}_3\%$	B.D.(g/cm <sup>3</sup> )	$\text{SiO}_2\%$	CaO+MgO%	$\text{Na}_2\text{O}+\text{K}_2\text{O}\%$	$\text{TiO}_2\%$
≥ 90	≤ 2	≥ 3.20	≤ 5	≤ 0.5	≤ 0.20	≤ 3.8
≥ 89	≤ 2	≥ 3.15	≤ 5.5	≤ 0.5	≤ 0.20	≤ 3.8
≥ 88	≤ 2	≥ 3.10	≤ 6	≤ 0.5	≤ 0.25	≤ 3.8
≥ 87	≤ 2	≥ 3.00	≤ 6.5	≤ 0.5	≤ 0.25	≤ 3.8
≥ 86	≤ 2	≥ 2.90	≤ 7	≤ 0.5	≤ 0.25	≤ 3.8
≥ 85	≤ 2	≥ 3.10	≤ 9	≤ 0.5	≤ 0.25	≤ 3.8
≥ 80	≤ 2	≥ 2.75	≤ 12	≤ 0.5	≤ 0.25	≤ 3.8
≥ 70	≤ 2	≥ 2.60	≤ 22	≤ 0.5	≤ 0.25	≤ 3.8
≥ 50	≤ 2	≥ 2.50	≤ 42	≤ 0.5	≤ 0.25	≤ 3.8

## GRITS AVAILABLE

mm: 0-1, 1-3, 3-5, 0-30, 0-50

Mesh: -200, -325

Other sizes available on request.

## APPLICATIONS

- **Aluminum Production:** Calcined Bauxite is the key raw material in the smelting of aluminum.
- **Refractories:** Calcined Bauxite's heat-resistance can reach 1780°C while maintaining chemical stability and mechanical performance, because of its high alumina and low iron content ( $\text{Al}_2\text{O}_3 \geq 48\%$  and low  $\text{Fe}_2\text{O}_3$ ). It is widely used for kiln linings and bricks, molds, mortars, and precision castings. Calcined Bauxite grog can also be melted in an electric arc furnace at 2000°C - 2200°C and then further processed into aluminum silicate refractory fibers, which can be made into fiber blankets, plates, and cloth.
- **Abrasives:** Calcined Bauxite is crushed, graded by size, and used for a wide variety of abrasive applications.
- **Cement:** Calcined Bauxite provides aluminum in specialty calcium aluminate cements, which serve applications such as: refractory concretes, where strength is required at high temperatures; construction concretes, where rapid strength development is required, even at low temperatures; and as a protective liner against microbial corrosion, such as in sewer infrastructure.
- **Chemicals:** Particularly for all kinds of aluminum compounds.
- **Ceramics:** Calcined Bauxite is used in the production of a variety of structural and functional ceramic products, such as catalytic substrates, electronic ceramics (substrates, pressure sensors) and spark plugs.
- **Pavement and Flooring:** Wherever a very hard and long-lasting mineral is required to enhance safety through high-friction, non-slip performance.

**Important:** The technical data herein is believed to be accurate. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage and handling of the product.

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