DGC REFRACTORIES TECHNICAL DATA SHEET

CHROME-CORUNDUM BRICK (CR-AZ/80)

FOR HIGH-CORROSION ENVIRONMENTS & SEVERE SLAG CONDITIONS

The Chrome-Corundum Brick (CR-AZ/80) is a premium high-alumina refractory brick enhanced with **fused alumina and chromium oxide (Cr_2O_3)** to provide superior **slag corrosion resistance, abrasion resistance, and chemical stability** in extremely aggressive furnace environments. It is especially suitable for **non-ferrous smelting, incineration plants, and gasification units,** where exposure to acidic and basic slags, vapours, and mechanical wear is extreme.

TECHNICAL SPECIFICATIONS

PROPERTY	CR-AZ/80
Al_2O_3 (%)	≥ 80
Cr_2O_3 (%)	10 – 20
Apparent Porosity (%)	≤ 17
Bulk Density (g/cm³)	≥ 3.20
Cold Crushing Strength (MPa)	≥ 100
Modulus of Rupture at 1400°C (MPa)	≥ 12
Refractoriness Under Load (0.2 MPa, °C)	≥ 1700
Thermal Conductivity at 1000°C (W/m·K)	3.2 – 3.8
Maximum Service Temperature (°C)	1800
Bond Type	Direct-bonded corundum-chrome

PACKAGING & SUPPLY

- Bricks packed in wooden crates, shrink-wrapped and clearly labelled
- Each batch accompanied by detailed QA/QC certification
- Custom shapes and sizes available upon request

INSTALLATION NOTES

- Use with alumina- or chrome-alumina-based mortar (as specified)
- Preheat to eliminate moisture before service exposure
- Lay with expansion allowances for thermal cycling conditions

ENVIRONMENTAL & SAFETY NOTES

- Chrome content is in a stable Cr_2O_3 oxidation state (non-hexavalent)
- Manufactured in compliance with ISO 14001 and RoHS directives
- Environmentally durable with extended lifespan and reduced waste output

KEY APPLICATIONS

- Copper and Zinc Smelting Furnaces
- Slag Cleaning Furnaces
- Gasifiers and Incineration Units
- Burner Blocks and Reaction Zones
- Tapping Channels, Launders, and Spouts
- Glass Regenerators (severe corrosion zones)

PERFORMANCE CHARACTERISTICS

- **High resistance to slag penetration** from silicates, phosphates, and alkalis
- Outstanding **thermal stability and creep resistance**
- Excellent **mechanical strength and abrasion resistance**
- Suitable **for extreme temperature cycles and reducing conditions**
- Long campaign performance with reduced downtime and maintenance

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