DGC REFRACTORIES TECHNICAL DATA SHEET

CHROME-CORUNDUM BRICK (CRAL-90)

HIGH-PERFORMANCE REFRACTORY FOR SEVERE CORROSION AND EROSION CONDITIONS

The Chrome-Corundum Brick (CRAL-90) is engineered for environments with extreme slag corrosion, thermal cycling, and chemical volatility. Based on **fused alumina and chromium oxide (Cr_2O_3),** this material offers excellent **hot strength, corrosion resistance, and long service life** in high-temperature, chemically aggressive furnaces.

TECHNICAL SPECIFICATIONS

PROPERTY	CRAL-90
Al_2O_3 (%)	≥ 75
Cr_2O_3 (%)	≥ 15
Apparent Porosity (%)	≤ 18
Bulk Density (g/cm³)	≥ 3.25
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)	3.0 – 3.6
Maximum Service Temperature (°C)	1800
Bond Type	Sintered (Ceramic Bond)

PACKAGING & SUPPLY

- Delivered on fumigated export-grade pallets
- Precision-pressed in standard and customized shapes
- Each batch supplied with full technical and quality certifications

INSTALLATION NOTES

- Jointing with chrome-alumina or high-alumina mortars is recommended
- Maintain optimal firing curves for gradual temperature ramp-up
- Follow standard personal safety protocols during handling and installation

ENVIRONMENTAL & SAFETY NOTES

- Hexavalent chromium-free formulation available upon request
- Low dust generation during handling
- Supports long campaign cycles, reducing frequent relining and refractory waste

KEY APPLICATIONS

- Anode Baking Furnaces (Sidewalls & Ramp Zones)
- Flash Smelting Furnaces
- Copper Converters and Slag Cleaning Units
- Glass Tank Bottoms and Port Crowns
- Petrochemical Incineration Chambers

PERFORMANCE CHARACTERISTICS

- **Outstanding corrosion resistance** to acidic and basic slags
- **High hot strength and structural stability**
- Long-lasting performance under thermal cycling and mechanical wear
- Ideal for **metal-contact and high-stress zones**

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REACH OUT TO US

contactus@dgc-africa.com