DGC REFRACTORIES TECHNICAL DATA SHEET

CHROME CORUNDUM BRICK (CR-90)

EXTREME CORROSION RESISTANCE FOR AGGRESSIVE METALLURGICAL ENVIRONMENTS

The Chrome Corundum Brick CR-90 is manufactured with high-purity fused alumina and chromium oxide, designed for use in **severe chemical and mechanical environments.** The addition of Cr_2O_3 enhances the brick's ability to withstand **aggressive slag, gas, and metal corrosion,** making it ideal for the most demanding non-ferrous, petrochemical, and waste incineration applications.

TECHNICAL SPECIFICATIONS

PROPERTY	CR-90
Al_2O_3 (%)	≥ 75
Cr_2O_3 (%)	≥ 10 – 20
Apparent Porosity (%)	≤ 18
Bulk Density (g/cm³)	≥ 3.2
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)	2.0 – 2.4
Maximum Service Temperature (°C)	1800
Bond Type	Fused Alumina & Chrome Oxide

KEY APPLICATIONS

- Copper & Nickel Smelting Furnaces
- Anode Baking Furnace Walls and Roofs
- Petrochemical Gasifiers
- Hazardous Waste Incinerators
- High-Wear Burner Zones and Launders

PERFORMANCE CHARACTERISTICS

- **Exceptional resistance** to alkali and acidic slags
- High density ensures **superior erosion resistance** in molten metal contact zones
- Suitable for use in **reducing and oxidising atmospheres**
- Offers **dimensional stability** under thermal cycling and high load

PACKAGING & SUPPLY

- Export-standard packaging on fumigated pallets
- Supplied in various formats, including custom-designed interlocking shapes
- Accompanied by complete QA and batch conformity certifications

INSTALLATION NOTES

- Recommended jointing with chrome-alumina mortar
- Preheating before use can improve campaign life in high-impact areas
- Ensure joint tightness in high-pressure gas environments

ENVIRONMENTAL & SAFETY NOTES

- Hexavalent chromium content well below international limits
- Designed for reduced maintenance frequency and refractory waste
- Safe handling instructions provided for high-temperature service

www.dgc-africa.com

REACH OUT TO US

contactus@dgc-africa.com