

# CCREFRACTORIES TECHNICAL OVERVIEW

#### **CHROME-BASED BRICKS**

Chrome-containing refractories are engineered for highly corrosive environments, offering outstanding chemical resistance, structural integrity, and thermal performance. DGC Refractories supplies an advanced portfolio of chrome-based bricks designed to perform in the harshest industrial settings, including non-ferrous metal smelting, thermal power, and petrochemical applications. Below is a detailed overview of our current chrome-based product range.

#### **CHROME-CORUNDUM BRICK**

This brick combines high-purity alumina (corundum) with chrome oxide to form a dense, chemically stable structure. Designed for ultra-high temperature operations, it offers excellent resistance to acid slags and alkali vapours. Its microstructure minimises slag infiltration and makes it ideal for areas exposed to aggressive chemical corrosion, such as incinerators, petrochemical furnaces, and waste heat recovery systems.

### **CHROME-CORUNDUM BRICK (CRAL-90)**

The CRAL-90 grade features a high chrome oxide content (up to 20%) and alumina exceeding 75%, delivering superior erosion resistance and thermal conductivity. This product is widely used in the non-ferrous metals sector, especially in flash furnaces, converter linings, and slag zones where performance demands are exceptionally high. The dense matrix structure extends service life in high-load zones.

## **CHROME-ALUMINA BRICK (CRAL-80)**

With slightly lower chrome content than the CRAL-90, this version balances chemical resistance with cost efficiency. It is used in secondary smelting zones or as a transition material between high-chrome and high-alumina linings. It performs reliably in conditions involving rapid thermal cycling and intermittent exposure to corrosive slags.

### **CHROME CORUNDUM BRICK (CR-90)**

**CR-90** bricks provide a robust combination of alumina and chrome oxide with excellent hot strength and low creep under high load. This makes them suitable for demanding high-temperature processes such as soaking pits, gasifiers, and high-capacity reformers in petrochemical operations. Their high density enhances erosion resistance in high-velocity gas zones.



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