



PRODUCT DATA

Brand Name: **KRIAL® 50-A**

Description: KRIAL® 50-A has a combination of creep resistance, dimensional stability, resistance to chemical attack and thermal conductivity which make it ideally suited for heat exchange applications. It is an ideal product for use in high-efficiency, thin-wall blast furnace stove checkers which are specially formed during production. KRIAL® 50-A is also an excellent choice for all areas of carbon anode baking furnaces where its refractoriness and superior mechanical properties are essential.

**Physical properties shown are averages based on standard brick sizes.
ASTM test methods used where applicable**

Bulk Density (pcf)

As Received 148 (3.33 g/cm³)

Modulus of Rupture (psi)

At 70°F (21°C) 2120 (118 kg/cm²)

Cold Crushing Strength (psi)

At 70°F (21°C) 8700 (827 kg/cm²)

Apparent Porosity (%)

As Received 13.8

Hot Load Deformation (%)

2640°F (1450°C) / 25 psi (1.8 MPa) 0.3

Creep (%)

5th / 50th Hour 2400°F (1280°C) Less than 0.12
20th / 50th Hour 2400°F (1280°C) Less than 0.15

Permanent Linear Change (%):

2550°F (1400°C) / 5 Hours 0.0
2910°F (1600°C) / 5 Hours +0.7

Typical Chemical Analysis (%)

(Calcined Basis)

Alumina (Al ₂ O ₃)	49.7
Silica (SiO ₂)	46.6
Magnesia (MgO)	0.1
Lime (CaO)	0.1
Iron Oxide (Fe ₂ O ₃)	1.1
Titania (TiO ₂)	2.2
Alkalis (Na ₂ O+K ₂ O)	0.2

Brand Code: 1350

The properties shown on this data sheet represent typical average results using standard ASTM test methods (unless otherwise noted) conducted under controlled condition (using standard rectangular shapes), and should not be considered to be guaranteed specifications. Properties are subject to normal manufacturing statistical standard deviation ranges, and Resco Products, Inc. reserves the right to modify the properties and specifications at any time without prior notice.

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