



TECHNICAL DATA

Product: **KRIAL[®] 50-A**
Description: **50% ALUMINA, CREEP RESISTANT BRICK**
Pyrometric Cone Equivalent: **34 - 35**

Standard Deviation (σ)

Bulk Density (lb/ft³) : **148 (2371 kg/m³)** **2.8 (44.9 kg/m³)**

Modulus of Rupture (lb/in²)
At 70°F (21°C) : **2120 (14.6 MPa)** **500 (3.4 MPa)**

Cold Crushing Strength (lb/in²)
At 70°F (21°C) : **8700 (60.0 MPa)** **1910 (13.2 MPa)**

Apparent Porosity (%) : **13.8** **1.8**

Hot Load Deformation (%)
2640°F (1450°C) & 25 psi (1.8 MPa) : **0.3**

Creep (5th-50th Hour) (%)
2340°F (1280°C) & 28.4 psi (2.0 MPa) : **≤0.12**

Creep (20th-50th Hour) (%)
2460°F (1350°C) & 28.4 psi (2.0 MPa) : **≤0.15**

Permanent Linear Change, %:
2550°F (1400°C) & 5 Hours : **0.0**
2910°F (1600°C) & 5 Hours : **+0.7**

Refractoriness Under Load t 0.5%
ISO 1893:2007 & 28.4 psi (2.0 MPa) : **2874°F (1579°C)**

Typical Chemical Analysis (Calcined)

Alumina (Al₂O₃).....	49.7 %
Silica (SiO₂).....	46.6
Iron Oxide (Fe₂O₃).....	1.1
Titania (TiO₂).....	2.2
Lime (CaO).....	0.1
Magnesia (MgO).....	0.1
Alkalies.....	0.2

The properties shown on this data sheet represent typical average results generated 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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