



# Low Cement Castables

## Cast Data

### VIBROCAST 50

**VIBROCAST 50** is a 3000°F, 45% alumina, low-cement castable that offers excellent resistance to alkalis. This product is designed to give minimum porosity and low linear change with maximum density and high fired strengths, and can withstand severe high temperature corrosive and erosive environments. This product should be installed by vibration casting methods only.

**Maximum Service Temperature:** 3000°F (1650°C)

**Bulk Density:**

After 220°F (105°C): 148 lbs/ft<sup>3</sup> (2368 kg/m<sup>3</sup>)  
After 1500°F (815°C): 144 lbs/ft<sup>3</sup> (2304 kg/m<sup>3</sup>)

**Cold Crushing Strength:**

After 1500°F (815°C): 9000- 14,000 psi (630-980 kg/cm<sup>2</sup>)

**Modulus of Rupture:**

After 1500°F (815°C): 1200- 1700 psi (84-119 kg/cm<sup>2</sup>)

**Permanent Linear Change (%):**

After 1500°F (540°C): 0.0 to -0.4  
After 2500°F (1370°C): 0.0 to -0.4

**Erosion Loss using ASTM C-704 Method:**

After 1500°F (815°C): 10 cc (max)

**Thermal Conductivity or "K" Factor:**

| Mean Temp.       | BTU/ft <sup>2</sup> /Hr/°F/in | W/mK |
|------------------|-------------------------------|------|
| 1000°F (540°C):  | 9.0                           | 1.30 |
| 1500°F (815°C):  | 10.0                          | 1.44 |
| 2000°F (1095°C): | 10.0                          | 1.44 |

**Typical Chemical Analysis (%):**

| Al <sub>2</sub> O <sub>3</sub> | SiO <sub>2</sub> | Fe <sub>2</sub> O <sub>3</sub> | TiO <sub>2</sub> | CaO | Alkalies |
|--------------------------------|------------------|--------------------------------|------------------|-----|----------|
| 45.0                           | 50.9             | 0.7                            | 1.1              | 2.0 | 0.3      |

**Standard Packaging:** 72-55 lb. bags per pallet. Bulk packaging available

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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