



PRODUCT DATA

Brand Name:

RESCOCAST RS-3005-NS

Description:

High purity alumina insulating castable. Vibration casting is the recommended installation method for this product. This product features a low thermal conductivity and a very high maximum temperature limit. The trace amounts of silica and iron oxide make this product ideal for use in carbon monoxide and hydrogen atmospheres especially at high temperatures.

Physical properties shown are average values of samples taken under controlled conditions
ASTM test methods used where applicable

Maximum Service Temperature: 3400°F (1870°C)

Typical Water Required for Mixing (by weight) :

Vibration Cast 43%

Vibration Cast Data

Bulk Density (pcf)

| After 220°F (105°C) | 85 | (1.36 g/cm ³) |
|-----------------------|----|---------------------------|
| After 1500°F (815°C) | 78 | (1.25 g/cm ³) |
| After 2300°F (1260°C) | 79 | (1.26 g/cm ³) |

Cold Crushing Strength (psi)

| | | |
|-----------------------|------|--------------------------|
| After 1500°F (815°C) | 870 | (61 kg/cm ²) |
| After 2300°F (1260°C) | 1300 | (91 kg/cm ²) |

Modulus of Rupture (psi)

| | | |
|-----------------------|-----|--------------------------|
| After 1500°F (815°C) | 250 | (17 kg/cm ²) |
| After 2300°F (1260°C) | 320 | (22 kg/cm ²) |

Thermal Conductivity (K Factor)

| Mean Temperature | BTU/ft ² /hr./°F/inch | W/mK |
|------------------|----------------------------------|------|
| 1000°F (540°C) | 2.7 | 0.39 |

Permanent Linear Change (%)

| | |
|-----------------------|------|
| After 1500°F (815°C) | -0.2 |
| After 2800°F (1538°C) | -0.8 |

Typical Chemical Analysis (%)

(Calcined Basis)

| | |
|---|------|
| Alumina (Al ₂ O ₃) | 89.8 |
| Silica (SiO ₂) | 0.1 |
| Iron Oxide (Fe ₂ O ₃) | 0.1 |
| Lime (CaO) | 9.5 |
| Magnesia (MgO) | 0.2 |
| Alkalies (Na ₂ O+K ₂ O) | 0.3 |

Standard Packaging: 50 lb bag. 50 bags per pallet. Bulk packaging available.

Brand Code: 1497

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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