



PRODUCT DATA

Brand Name: UNICRETE 50 FLOWZ

Description: UNICRETE 50 FLOWZ is a self-flow, shotcretable, low cement castable. The properties of low cement castables are sensitive to the amount of mixing water used during casting. The best physical properties are achieved when mixing water is kept to a minimum, the material is mixed thoroughly and as much vibration as possible is used when casting.

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

Maximum Service Temperature: 3000°F (1649°C)

Typical Water Required for Mixing (by weight) :

Casting 4.3 - 4.9%

| <u>Bulk Density (pcf)</u> | <u>Casting Data</u> | |
|---|---------------------|----------------------------|
| | | |
| After 300°F (150°C) | 153 | (2.45 g/cm ³) |
| After 1500°F (815°C) | 150 | (2.40 g/cm ³) |
| After 2800°F (1538°C) | 147 | (2.35 g/cm ³) |
| After 3000°F (1649°C) | 150 | (2.40 g/cm ³) |
| <u>Cold Crushing Strength (psi)</u> | | |
| After 300°F (150°C) | 9000 | (630 kg/cm ²) |
| After 1500°F (815°C) | 14000 | (980 kg/cm ²) |
| After 2800°F (1538°C) | 15000 | (1050 kg/cm ²) |
| After 3000°F (1649°C) | 11000 | (770 kg/cm ²) |
| <u>Modulus of Rupture (psi)</u> | | |
| After 300°F (150°C) | 2250 | (158 kg/cm ²) |
| After 1500°F (815°C) | 3500 | (245 kg/cm ²) |
| After 2800°F (1538°C) | 3500 | (245 kg/cm ²) |
| After 3000°F (1649°C) | 2750 | (193 kg/cm ²) |
| <u>Permanent Linear Change (%)</u> | | |
| After 300°F (150°C) | -0.2 to 0.0 | |
| After 1500°F (815°C) | -0.1 to +0.3 | |
| After 2800°F (1538°C) | +0.6 to +1.2 | |
| After 3000°F (1649°C) | -0.5 to 0.0 | |

Typical Chemical Analysis (%)

(Calcined Basis)

| | |
|---|------|
| Alumina (Al ₂ O ₃) | 51.5 |
| Silica (SiO ₂) | 44.5 |
| Iron Oxide (Fe ₂ O ₃) | 0.8 |
| Titania (TiO ₂) | 1.4 |
| Lime (CaO) | 1.4 |
| Magnesia (MgO) | 0.1 |
| Alkalies (Na ₂ O+K ₂ O) | 0.2 |

Standard Packaging: 60 lb bag. Bulk packaging available.

Brand Code: 3132

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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