



# PRODUCT DATA

**Brand Name:** UNICRETE 80 CLC 102

**Description:** UNICRETE 80 CLC 102 is a high alumina low cement castable designed for maximum resistance to thermal shock and abrasion. 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 ..... 4.5%

**Bulk Density (pcf)**

	Casting Data	
After 500°F (260°C)	176	(2.82 g/cm <sup>3</sup> )
After 2200°F (1204°C)	175	(2.80 g/cm <sup>3</sup> )
After 2800°F (1538°C)	168	(2.69 g/cm <sup>3</sup> )

**Cold Crushing Strength (psi)**

After 500°F (260°C)	8000	(560 kg/cm <sup>2</sup> )
After 2200°F (1204°C)	12000	(840 kg/cm <sup>2</sup> )
After 2800°F (1538°C)	12000	(840 kg/cm <sup>2</sup> )

**Modulus of Rupture (psi)**

After 500°F (260°C)	1950	(137 kg/cm <sup>2</sup> )
After 2200°F (1204°C)	2450	(172 kg/cm <sup>2</sup> )
After 2800°F (1538°C)	2600	(182 kg/cm <sup>2</sup> )

**Permanent Linear Change (%)**

After 500°F (260°C)	0.0
After 2200°F (1204°C)	-0.04
After 2800°F (1538°C)	+1.6

**Typical Chemical Analysis (%)**

(Calcined Basis)

Alumina (Al <sub>2</sub> O <sub>3</sub> ) .....	78.9
Silica (SiO <sub>2</sub> ) .....	14.7
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> ) .....	1.5
Titania (TiO <sub>2</sub> ) .....	3.0
Lime (CaO) .....	1.3
Magnesia (MgO) .....	0.2
Alkalies (Na <sub>2</sub> O+K <sub>2</sub> O) .....	0.4
Other .....	0.1

**Standard Packaging:** Bulk Sacks of various weight

Brand Code: 3199

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.

RESKO PRODUCTS disclaims any express or implied warranties based on this sheet.

03/29/17 is the date that this data sheet was updated. Check with your RESKO sales representative or RESKO website to determine you have the current sheet.