



# PRODUCT DATA

**Brand Name:**

## UNICRETE 85 LC

**Description:** UNICRETE 85 LC 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 ..... 4.0 - 5.0%

	Casting Data	
<b><u>Bulk Density (pcf)</u></b>		
After 300°F (150°C)	180	(2.88 g/cm <sup>3</sup> )
After 2200°F (1204°C)	181	(2.90 g/cm <sup>3</sup> )
After 2800°F (1538°C)	175	(2.80 g/cm <sup>3</sup> )
<b><u>Cold Crushing Strength (psi)</u></b>		
After 300°F (150°C)	8000	(560 kg/cm <sup>2</sup> )
After 2200°F (1204°C)	9000	(630 kg/cm <sup>2</sup> )
After 2800°F (1538°C)	6000	(420 kg/cm <sup>2</sup> )
<b><u>Modulus of Rupture (psi)</u></b>		
After 300°F (150°C)	2400	(168 kg/cm <sup>2</sup> )
After 2200°F (1204°C)	2700	(189 kg/cm <sup>2</sup> )
After 2800°F (1538°C)	1750	(123 kg/cm <sup>2</sup> )
<b><u>Permanent Linear Change (%)</u></b>		
After 300°F (150°C)	0.0	
After 2200°F (1204°C)	-0.3	
After 2800°F (1538°C)	+0.9	

**Typical Chemical Analysis (%)**

(Calcined Basis)

Alumina (Al <sub>2</sub> O <sub>3</sub> ) .....	83.3
Silica (SiO <sub>2</sub> ) .....	11.3
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> ) .....	1.3
Titania (TiO <sub>2</sub> ) .....	2.4
Lime (CaO) .....	1.2
Magnesia (MgO) .....	0.2
Alkalies (Na <sub>2</sub> O+K <sub>2</sub> O) .....	0.3

**Standard Packaging:** 60 lb bag. Bulk packaging available.

Brand Code: 3149

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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