



PRODUCT DATA

Brand Name: PROCAST® 80

Description: PROCAST® 80 is a bauxite-based, ultra-low cement castable. This vibration mix performs well in steel ladles, EAF deltas, and other applications requiring high strength, good thermal shock resistance, and good abrasion resistance.

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

Maximum Service Temperature: 3200°F (1760°C)

Dry Material Required per Cubic Foot : 176 - 182 lbs. (approximate)

Typical Water Required for Mixing (by weight) :
Vibration Casting 4.0 to 6.0%

<u>Bulk Density (pcf)</u>	<u>Cast Data</u>	
After 220°F (104°C)	174 - 184	(2.79 - 2.95 g/cm ³)
After 1500°F (815°C)	182 - 188	(2.92 - 3.01 g/cm ³)
After 2910°F (1600°C)	179 - 185	(2.87 - 2.96 g/cm ³)
<u>Cold Crushing Strength (psi)</u>		
After 220°F (104°C)	3300 - 10300	(231 - 721 kg/cm ²)
After 1500°F (815°C)	5800 - 11800	(406 - 826 kg/cm ²)
After 2910°F (1600°C)	11400 - 17400	(798 - 1218 kg/cm ²)
<u>Modulus of Rupture (psi)</u>		
After 220°F (104°C)	900 - 1900	(63 - 133 kg/cm ²)
After 1500°F (815°C)	1100 - 2100	(77 - 147 kg/cm ²)
After 2910°F (1600°C)	1200 - 2200	(84 - 154 kg/cm ²)
<u>Thermal Conductivity (K Factor)</u>		
Mean Temperature	<u>BTU/ft²/hr./°F/inch</u>	<u>W/mK</u>
1500°F (815°C)	20.7	2.98
2000°F (1093°C)	21.3	3.07
2550°F (1400°C)	20.8	3.00
<u>Apparent Porosity (%)</u>		
After 1500°F (815°C)	13 - 17	
After 2910°F (1600°C)	10 - 14	
<u>Permanent Linear Change (%)</u>		
After 1500°F (815°C)	-0.4 to 0.2	
After 2910°F (1600°C)	0.1 to 0.7	

Typical Chemical Analysis (%)
(Calcined Basis)

Alumina (Al ₂ O ₃)	84.0
Silica (SiO ₂)	10.2
Iron Oxide (Fe ₂ O ₃)	1.2
Titania (TiO ₂)	3.0
Magnesia (MgO)	0.3
Lime (CaO)	1.1
Alkalies (Na ₂ O+K ₂ O)	0.2

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

Brand Code: 1032

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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