



PRODUCT DATA

Brand Name: PUROCAST® N

Description: PUROCAST® N is a 3000°F castable that will withstand rapid heat-up. It is a low iron, high alumina material capable of withstanding reducing or hydrogen atmospheres, carbon deposition, and high sulfur fuels. It has good volume stability, excellent resistance to spalling, and low thermal conductivity.

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

Maximum Service Temperature: 3000°F (1650°C)

Dry Material Required per Cubic Foot : 136 - 140 lbs. (approximate)

Typical Water Required for Mixing (by weight) :

Vibration Casting 8.0 to 10.0%

Bulk Density (pcf)

After 220°F (104°C)
After 1500°F (815°C)
After 2910°F (1600°C)

Cast Data

141 - 144	(2.26 - 2.31 g/cm ³)
137 - 140	(2.19 - 2.24 g/cm ³)
130 - 133	(2.08 - 2.13 g/cm ³)

Cold Crushing Strength (psi)

After 220°F (104°C)
After 1500°F (815°C)
After 2910°F (1600°C)

2200 - 3200	(154 - 224 kg/cm ²)
800 - 1800	(56 - 126 kg/cm ²)
8500 - 9500	(595 - 665 kg/cm ²)

Modulus of Rupture (psi)

After 220°F (104°C)
After 1500°F (815°C)
After 2910°F (1600°C)

500 - 900	(35 - 63 kg/cm ²)
200 - 300	(14 - 21 kg/cm ²)
2100 - 2700	(147 - 189 kg/cm ²)

Thermal Conductivity (K Factor)

Mean Temperature
After 1500°F (815°C)
After 2250°F (1232°C)
After 2910°F (1600°C)

<u>BTU/ft²/hr./°F/inch</u>	<u>W/mK</u>
8.9	1.28
9.8	1.41
10.2	1.47

Permanent Linear Change (%)

After 1500°F (815°C)
After 2910°F (1600°C)

-0.1 to -0.7
+1.0 to +2.0

Typical Chemical Analysis (%)

(Calcined Basis)

Alumina (Al ₂ O ₃)	62.3
Silica (SiO ₂)	30.1
Iron Oxide (Fe ₂ O ₃)	1.2
Titania (TiO ₂)	2.4
Lime (CaO)	3.1
Magnesia (MgO)	0.3
Alkalis (Na ₂ O+K ₂ O)	0.6

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

Brand Code: 1057

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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