



PRODUCT DATA

Brand Name: PUROTAB®

Description: PUROTAB® is a high purity, low iron, high alumina castable designed specifically for use at temperatures up to 3400°F. It is made with tabular alumina aggregate bonded with a high purity calcium aluminate cement. It is highly resistant to reducing atmospheres as well as high sulfur fuels and charge stocks. It has good volume stability with very good resistance to thermal shock.

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

Maximum Service Temperature: 3400°F (1871°C)

Dry Material Required per Cubic Foot : 160 - 170 lbs. (approximate)

Typical Water Required for Mixing (by weight) :

Vibration Casting 8.0 to 11.0%

<u>Bulk Density (pcf)</u>	<u>Cast Data</u>	
After 220°F (104°C)	165 - 178	(2.64 - 2.85 g/cm ³)
After 1500°F (815°C)	161 - 174	(2.58 - 2.79 g/cm ³)
After 3000°F (1650°C)	165 - 176	(2.64 - 2.82 g/cm ³)

<u>Cold Crushing Strength (psi)</u>		
After 220°F (104°C)	5200 - 10200	(364 - 714 kg/cm ²)
After 1500°F (815°C)	7300 - 9900	(511 - 693 kg/cm ²)
After 3000°F (1650°C)	3300 - 5300	(231 - 371 kg/cm ²)

<u>Modulus of Rupture (psi)</u>		
After 220°F (104°C)	1600 - 2600	(112 - 182 kg/cm ²)
After 1500°F (815°C)	1500 - 2100	(105 - 147 kg/cm ²)
After 3000°F (1650°C)	800 - 1300	(56 - 91 kg/cm ²)

<u>Thermal Conductivity (K Factor)</u>	<u>BTU/ft²/hr./°F/inch</u>	<u>W/mK</u>
Mean Temperature		
After 1500°F (815°C)	16.9	2.44
After 2000°F (1093°C)	17.1	2.46
After 2500°F (1371°C)	15.3	2.21

<u>Permanent Linear Change (%)</u>	
After 1500°F (815°C)	-0.1 to -0.5
After 3000°F (1650°C)	-0.6 to -1.1

Typical Chemical Analysis (%)

(Calcined Basis)

Alumina (Al ₂ O ₃)	94.0
Silica (SiO ₂)	0.1
Iron Oxide (Fe ₂ O ₃)	0.3
Titania (TiO ₂)	Trace
Lime (CaO)	5.4
Magnesia (MgO)	0.1
Alkalis (Na ₂ O+K ₂ O)	0.1

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

Brand Code: 1064

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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