



PRODUCT DATA

Brand Name: PUROLITE® 30

Description: PURO-LITE® 30 is a lightweight castable with a very low iron content for service to 3000°F. It can be used in direct exposure to flame or furnace gases, or as a backup for brick or castable. It is a low iron material with good resistance to carbon monoxide disintegration and thermal shock.

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)

Typical Water Required for Mixing (by weight) :

Casting 23 - 27%
Predampening for Gunning 6.0 - 8.0%

Dry Material Required per Cubic Foot:

Casting 88 - 93 lbs
Gunning 90 - 97 lbs

Bulk Density (pcf)	<u>Casting Data</u>		<u>Gunning Data</u>	
	Range	Density (g/cm ³)	Range	Density (g/cm ³)
After 220°F (105°C)	89 - 96	(1.43 - 1.54 g/cm ³)	89 - 96	(1.43 - 1.54 g/cm ³)
After 2000°F (1093°C)	85 - 92	(1.36 - 1.47 g/cm ³)	85 - 92	(1.36 - 1.47 g/cm ³)
After 2550°F (1400°C)	85 - 92	(1.36 - 1.47 g/cm ³)	85 - 92	(1.36 - 1.47 g/cm ³)

Cold Crushing Strength (psi)	<u>Casting Data</u>		<u>Gunning Data</u>	
	Range	Density (kg/cm ²)	Range	Density (kg/cm ²)
After 220°F (105°C)	500 - 700	(35 - 49 kg/cm ²)	500 - 700	(35 - 49 kg/cm ²)
After 2000°F (1093°C)	400 - 600	(28 - 42 kg/cm ²)	400 - 600	(28 - 42 kg/cm ²)
After 2550°F (1400°C)	1300 - 1400	(91 - 98 kg/cm ²)	1300 - 1400	(91 - 98 kg/cm ²)

Modulus of Rupture (psi)	<u>Casting Data</u>		<u>Gunning Data</u>	
	Range	Density (kg/cm ²)	Range	Density (kg/cm ²)
After 220°F (105°C)	200 - 600	(14 - 42 kg/cm ²)	200 - 600	(14 - 42 kg/cm ²)
After 2000°F (1093°C)	250 - 350	(18 - 25 kg/cm ²)	250 - 350	(18 - 25 kg/cm ²)
After 2550°F (1400°C)	900 - 1000	(63 - 70 kg/cm ²)	900 - 1000	(63 - 70 kg/cm ²)

Thermal Conductivity (K Factor)	<u>BTU/ft²/hr./°F/inch</u>		<u>W/mK</u>	
	Temp (°F)	Temp (°C)	Temp (°F)	Temp (°C)
1500°F (815°C)	4.2	0.61	3.8	0.55
2500°F (1371°C)	7.0	1.00	6.7	0.97

Permanent Linear Change (%)	Casting Data	Gunning Data
After 2550°F (1400°C)	-0.2 to -0.6	-0.6 to +0.8

Typical Chemical Analysis (%)

(Calcined Basis)

Alumina (Al ₂ O ₃)	55.8
Silica (SiO ₂)	37.1
Lime (CaO)	4.2
Iron Oxide (Fe ₂ O ₃)	0.8
Titania (TiO ₂)	0.8
Magnesia (MgO)	0.2
Alkalies (Na ₂ O+K ₂ O)	1.1

Standard Packaging: 50 lb bag. 72 bags per pallet. Bulk packaging available.

Brand Code: 1055

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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