

# PGXX Graphite

Technical Data Sheet 6031

## Product Overview

Available in low ash monolithic sizes as large as 73" diameter, GRAFSTAR™ PGXX graphite combines excellent erosion resistance and great thermal properties with very low permeability.

## Applications

- Fluidized bed reactors
- Centrifugal casting molds
- Large diameter molds, crucibles and heat shields
- Monolithic composite tooling parts
- Induction and vacuum furnace parts
- Chemical heat exchangers and process equipment

## Sizes

- 36 to 73" diameter x 72" long rounds
- 36 to 55" diameter in 42" lengths
- 915 to 1855 mm x 1830 long rounds
- 915 to 1400 mm diameter in 1070 mm lengths

## Typical Properties at Room Temperature\*

Characteristic	Unit	WG	AG	Unit	WG	AG
Density	lbs/ft <sup>3</sup>	111		g/cc	1.78	
Specific Resistance	10 <sup>-4</sup> Ωin	3.5	4.4	μΩm	8.9	11.3
Flexural Strength	psi	1940	1730	MPa	13.4	11.9
Young's Modulus	10 <sup>6</sup> psi	1.15	0.87	GPa	7.9	6.0
Tensile Strength	psi	1530	1270	MPa	10.6	8.7
Compressive Strength	psi	4860	4860	MPa	33.5	33.5
Permeability	Darcy	0.0050	0.0055	Darcy	0.0050	0.0055
Hardness	Rockwell "R"	66		Shore	26	
C.T.E. (to 100 °C)	10 <sup>-6</sup> /°F	0.67	1.04	10 <sup>-6</sup> /°K	1.22	1.90
Ash Content	%	0.16		%	0.16	
Thermal Conductivity	BTU-ft/hr ft <sup>2</sup> °F	77.8	63.4	W/mK	135	110

Notes:  
\* Properties listed are typical and cannot be used as accept/reject specifications

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**Redefining limits**