



# GRAFSTAR™ PXP Grade Graphite

## Product Overview

GRAFSTAR™ PXP graphite is a very low ash material with excellent thermal shock resistance and is well suited for fine machining detail. It is a higher density, higher strength version of our grade PGX and PGWX graphite materials. Its higher Coefficient of Thermal Expansion (C.T.E.) property also makes it an excellent choice for working with Silicon Carbide applications.

## Applications

- Large diameter molds and crucibles
- Induction fce susceptors
- Fluidized bed reactors
- Heat exchangers
- Chemical Processing Equipment
- Centrifugal casting molds

## Sizes

Standard Sizes	
English	Metric
36 x 48 in	914 x 1220 mm
44 x 15 in	1118 x 584 mm
44 x 23 in	1118 x 584 mm
50 x 15 in	1270 x 381 mm
50 x 23 in	1270 x 584 mm
52 x 23 in	1321 x 584 mm

## Typical Properties at Room Temperature\*

Characteristic	English Units	WG		Metric Units	WG		SI Units	WG	
		AG	AG		AG	AG			
Bulk Density	lbs/ft <sup>3</sup>	109		g/cm <sup>3</sup>	1.75		g/cm <sup>3</sup>	1.75	
Average Particle Size	inches	0.03		mm	0.76		mm	0.76	
Specific Resistance	10 <sup>-4</sup> Ω-in	3.6	3.8	μΩm	9.2	9.6	μΩm	9.2	9.6
Flexural Strength	psi	2610	2415	kg/cm <sup>2</sup>	183	170	MPa	18	17
Young's Modulus	10 <sup>6</sup> psi	1.34	1.30	kg/mm <sup>2</sup>	942	913	GPa	9.2	9.0
Tensile Strength	psi	1840	1780	kg/cm <sup>2</sup>	129	125	MPa	13	12
Compressive Strength	psi	7610	6880	kg/cm <sup>2</sup>	535	483	MPa	52	47
Permeability	AFS	0.34	0.44	Darcy	0.11	0.14	Darcy	0.11	0.14
Hardness	Rockwell "R"	80		Rockwell "R"	80		Rockwell "R"	80	
C.T.E. (to 100 °C)	10 <sup>-6</sup> / °F	2.5	2.6	10 <sup>-6</sup> / °C	4.6	4.7	10 <sup>-6</sup> / K	4.6	4.7
Thermal Conductivity	BTU/hr-ft-°F	81	72	W/m-K	140	125	W/m-K	140	125
Ash Content	%	0.06		%	0.06		%	0.06	

### Notes:

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

