

GRAFTech International

PGW™ Graphite

GrafTech International is a global leader in graphite and carbon products. We enable customer leadership better and faster than our competition, through the creation, innovation and manufacture of carbon and graphite material science based solutions.

Grade PGW™ Graphite

An economical low ash material with excellent thermal shock resistance, grade PGW™ graphite is well suited for the fine machining detail required in molds for casting metal shapes. Grade PGW™ graphite is a molded version of grade CBY™ graphite with excellent internal structure.

Typical Applications Sizes

- Pressure casting molds
- Centrifugal casting molds
- Large diameter susceptors

Sizes

Inches	MM
44" x 15"	1118 x 381 mm
44" x 23"	1118 x 584 mm
50" x 15"	1270 x 381 mm
50" x 23"	1270 x 584 mm
52" x 23"	1321 x 584 mm

Typical Properties at Room Temperature

	<u>ENGLISH</u>	<u>WG</u>	<u>AG</u>	<u>METRIC</u>	<u>WG</u>	<u>AG</u>	<u>SI</u>	<u>WG</u>	<u>AG</u>
Density	lbs/ft ³	102		g/cm ³	1.63		g/cm ³	1.63	
Maximum Particle Size	Inches	0.03		mm	0.76		mm	0.76	
Specific Resistance	10 ⁻⁴ Ω in.	3.66	0.0	μΩm	9.3	0.0	μΩm	9.3	0.0
Flexural Strength	psi	1960	0	kg/cm ²	137	0	MPa	14	0
Young's Modulus	10 ⁶ psi	1.0	0	kg/mm ²	701	0	GPa	6.9	0.0
Tensile Strength	psi	1255	0	kg/cm ²	88	0	MPa	9	0
Compressive Strength	psi	4960	0	kg/cm ²	348	0	MPa	34	0
Permeability	Darcy	0.5	0	Darcy	0.5	0	Darcy	0.5	0
Hardness	Rockwell "R"	32		Rockwell "R"	32		Rockwell "R"	32	
C.T.E. (to 100 °C)	10 ⁻⁶ /°F	2.0	0.0	10 ⁻⁶ /°K	3.6	0.0	10 ⁻⁶ /°K	3.6	0.0
Thermal Conductivity	BTU-ft/hr ft ² °F	75	0	W/mK	130	0	W/mK	130	0
Ash Content	%	0.12		%	0.12		%	0.12	

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