



GRAFSTAR™ PGW Grade Graphite

Technical Data Sheet 5072

Product Overview

An economical low ash material with excellent thermal shock resistance, Amsted Graphite Materials' GRAFSTAR™ 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.

Applications

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

Sizes

Standard Sizes	
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*

Characteristic	Unit	AG	Unit	AG	Unit	AG
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 Ωin	3.66	μΩm	9.3	μΩm	9.3
Flexural Strength	psi	1960	kg/cm ²	137	MPa	14
Young's Modulus	10 ⁶ psi	1.0	kg/mm ²	701	GPa	6.9
Tensile Strength	psi	1255	kg/cm ²	88	MPa	9
Compressive Strength	psi	4960	kg/cm ²	348	MPa	34
Permeability	Darcy	0.5	Darcy	0.5	Darcy	0.5
Hardness	Rockwell "R"	32	Rockwell "R"	32	Rockwell "R"	32
C.T.E. (RT to 100 °C)	10 ⁻⁶ /°F	2.0	10 ⁻⁶ /°K	3.6	10 ⁻⁶ /°K	3.6
Thermal Conductivity	BTU-ft/hr ft ² °F	75	W/mK	130	W/mK	130
Ash Content	%	0.12	%	0.12	%	0.12

Notes:

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

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