

GRAFSTAR™ PGWX Grade Graphite

Technical Data Sheet 6033

Product Overview

GRAFSTAR™ PGWX graphite is a 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 PGW graphite material.

Applications

- Large diameter molds and crucibles
- Induction fce susceptors

- Heat exchangers
- · Chemical processing equipment

Sizes

Standard Sizes						
English	Metric					
36 x 48 in	914 x 1220 mm					
44 x 15 in	1118 x 381 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	AG	Metric Units	WG	AG	SI Units	WG	AG
Bulk Density	lbs/ft³	106		g/cm³	1.70		g/cm³	1.70	
Maximum Particle Size	inches	0.03		mm	0.76		mm	0.76	
Specific Resistance	10-4 Ω-in	3.0	3.6	μΩm	7.6	9.1	μΩm	7.6	9.1
Flexural Strength	psi	2700	2500	kg/cm²	190	176	MPa	19	17
Young's Modulus	106 psi	1.3	1.0	kg/mm²	913	703	GPa	9.0	6.9
Tensile Strength	psi	1900	1700	kg/cm²	134	119	MPa	13	12
Compressive Strength	psi	6400	6200	kg/cm²	450	436	MPa	44	43
Permeability	AFS	0.32	0.32	Darcy	0.10	0.10	Darcy	0.10	0.10
Hardness	Rockwell "R"	70		Rockwell "R"	70		Rockwell "R"	70	
C.T.E. (to 100 °C)	10 ⁻⁶ / °F	1.7	1.9	10 ⁻⁶ / °C	3.1	3.4	10 ⁻⁶ / K	3.1	3.4
Thermal Conductivity	BTU/hr-ft-°F	81	72	W/m-K	140	125	W/m-K	140	125
Ash Content	%	0.10		%	0.1		%	0.1	

Notes



© 2021 Amsted Graphite Materials LLC. This information is based on data believed to be reliable but Amsted Graphite Materials LLC makes no warranties, express or implied, as to its accuracy and assumes no liability arising out of its use. The data listed falls within the normal range of product properties but should not be used to establish specification limits or used alone as the basis or design. Amsted Graphite Materials LLC's liability to purchasers is expressly limited to the terms and conditions of sale. GRAFSTAR is a trademark of Amsted Graphite Materials LLC.

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