

GRAFSTAR™ PJP Grade Graphite

Technical Data Sheet

Product Overview

GRAFSTAR™ PJP graphite is an economical low ash material with excellent thermal shock resistance. GRAFSTAR™ PJP graphite is well suited for the fine machining detail required in molds for casting metal shapes.

Applications

· Rail wheel molds

Sizes

Standard Sizes							
English	Metric						
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	102		g/cm³	1.63		g/cm³	1.63	
Maximum Particle Size	inches	0.03		mm	0.76		mm	0.76	
Specific Resistance	10 ⁻⁴ Ω-in	3.6	4.0	μΩm	9.1	10.2	μΩm	9.1	10.2
Flexural Strength	psi		1960	kg/cm²		138	MPa		14
Young's Modulus	10 ⁶ psi		1.0	kg/mm²		703	GPa		6.9
Tensile Strength	psi		1255	kg/cm²		88	MPa		9
Compressive Strength	psi		4960	kg/cm²		349	MPa		34
Permeability	AFS		0.50	Darcy		0.16	Darcy		0.16
Hardness	Rockwell "R"	32		Rockwell "R"	32		Rockwell "R"	32	
C.T.E. (to 100 °C)	10 ⁻⁶ / °F	1.4	2.0	10 ⁻⁶ / °C	2.5	3.6	10 ⁻⁶ / K	2.5	3.6
Thermal Conductivity	BTU/hr-ft-°F	81	75	W/m-K	140	130	W/m-K	140	130
Ash Content	%	0.	10	%	C).1	%	C).1

Notes:



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