

GRAFSTAR™ CGW Grade Graphite

Product Overview

Isostatically molded grade CGW^{TM} graphite is an ATJ^{TM} based material that has been processed to higher density and strength. Grade CGW^{TM} is characterized by very low permeability, erosion resistance, and excellent surface hardness.

Applications

- · Continuous Casting dies
- Hot pressing molds and punches

Sizes*

Standard Sizes				
English	Metric			
16 x 16 x 72 in	406 x 406 x 1828 mm			
12 x 25 x 80 in	305 x 635 x 2032 mm			

Typical Properties at Room Temperature**

Characteristic	English Units	WG	Metric Units	WG	SI Units	WG
Bulk Density	lbs/ft³	112	g/cm³	1.80	g/cm³	1.80
Average Particle Size	inches	0.001	mm	0.03	mm	0.03
Specific Resistance	10 ⁻⁴ Ω-in	4.61	μΩm	11.7	μΩm	11.7
Flexural Strength	psi	5000	kg/cm²	351	MPa	34
Young's Modulus	10 ⁶ psi	1.55	kg/mm²	1089	GPa	10.7
Tensile Strength	psi	4500	kg/cm²	316	MPa	31
Compressive Strength	psi	11000	kg/cm²	773	MPa	76
Permeability	Darcy	0.0005	Darcy	0.0005	Darcy	0.0005
Hardness	Rockwell "L"	90	Rockwell "L"	90	Rockwell "L"	90
C.T.E. (to 100 °C)	10 ⁻⁶ / °F	1.7	10 ⁻⁶ / °C	3.0	10 ⁻⁶ / K	3.0
Thermal Conductivity	BTU/hr-ft-°F	69	W/m-K	120	W/m-K	120
Ash Content	%	0.09	%	0.09	%	0.09

Notes

* Other sizes may be made available upon request.



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