



GRAFSTAR™

CGW Grade Graphite

Product Overview

Isostatically molded grade CGW™ graphite is an ATJ™ based material that has been processed to higher density and strength. Grade CGW™ 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/ft ³	112	g/cm ³	1.80	g/cm ³
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/cm ²	351	MPa	34
Young's Modulus	10 ⁶ psi	1.55	kg/mm ²	1089	GPa	10.7
Tensile Strength	psi	4500	kg/cm ²	316	MPa	31
Compressive Strength	psi	11000	kg/cm ²	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.

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

