



Technical Data Sheet

CGW™ 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 low permeability, erosion resistance, and surface hardness.

Applications

- Continuous casting dies
- Hot pressing dies and molds

Sizes***Inches**

- 16" x 16" x 65" rectangles
- 12" x 25" x 80" rectangles
- 8" - 24" diameter x 72" long rounds

Millimeters

- 406 x 406 x 1651 mm rectangles
- 305 x 635 x 2032 mm rectangles
- 203-610 mm diameter x 1829 mm long rounds

Typical Properties at Room Temperature**

Characteristic	ENGLISH	WG	METRIC	WG	SI	WG
Density	lbs/ft ³	112	g/cm ³	1.79	g/cm ³	1.79
Maximum Particle Size	Inches	0.001	mm	0.03	mm	0.03
Specific Resistance	10 ⁻⁴ μΩm 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	1087	GPa	10.7
Tensile Strength	psi	4500	kg/cm ²	316	MPa	31
Compressive Strength	psi	11200	kg/cm ²	785	MPa	77
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	1.72	10 ⁻⁶ /°C	3.01	10 ⁻⁶ /K	3.1
Thermal Conductivity	BTU-ft/hr ft ² °F	70	W/mK	121	W/mK	121
Ash Content	%	.09	%	.09	%	.09

Notes:

* Other sizes available upon request

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