

# GRAFTech International

## CGW™ Graphite

GrafTech International is a global leader in graphite and carbon products. We enable customer leadership better and faster than our competition, through the creation, innovation and manufacture of carbon and graphite material science based solutions.

### Grade CGW™ Graphite

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.

### Typical Applications

- Continuous casting dies
- Hot pressing dies and molds

### Sizes

Inches	MM
16" x 16" x 65" rectangles	406 x 406 x 1651 mm rectangles
12" x 25" x 80" rectangles	305 x 635 x 2032 mm rectangles
8" - 24" diameter x 72" long rounds	203-610 mm diameter x 1829 long rounds

### Typical Properties at Room Temperature

	<u>ENGLISH</u>	<u>WG</u>	<u>METRIC</u>	<u>WG</u>	<u>SI</u>	<u>WG</u>
Density	lbs/ft <sup>3</sup>	112	g/cm <sup>3</sup>	1.79	g/cm <sup>3</sup>	1.79
Maximum Particle Size	Inches	0.001	mm	0.03	mm	0.03
Specific Resistance	10 <sup>-4</sup> Ω in.	4.61	μΩm	11.7	μΩm	11.7
Flexural Strength	psi	5000	kg/cm <sup>2</sup>	351	MPa	34
Young's Modulus	10 <sup>6</sup> psi	1.55	kg/mm <sup>2</sup>	1087	GPa	10.7
Tensile Strength	psi	4500	kg/cm <sup>2</sup>	316	MPa	31
Compressive Strength	psi	11200	kg/cm <sup>2</sup>	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 <sup>-6</sup> /°F	1.35	10 <sup>-6</sup> /°C	2.4	10 <sup>-6</sup> /K	2.4
Thermal Conductivity	BTU-ft/hr ft <sup>2</sup> °F	70	W/mK	121	W/mK	121
Ash Content	%	.09	%	.09	%	.09

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