

# GRAFTech International

## CGC™ 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 CGC™ Graphite

Grade CGC™ material is an ATC™-based material that has been processed to higher density and strength. Grade CGC™ graphite is isostatically molded to the most demanding quality standards and can be machined to very precise tolerances and a polished surface finish. This grade is specifically manufactured for continuous casting mold and die applications.

### Typical Applications

- Continuous casting dies
- Hot pressing dies and molds

### Sizes

All near net finished die and mold sizes

### 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.	5.43	μΩm	13.8	μΩm	13.8
Flexural Strength	psi	5150	kg/cm <sup>2</sup>	361	MPa	36
Young's Modulus	10 <sup>6</sup> psi	1.65	kg/mm <sup>2</sup>	1157	GPa	11.4
Tensile Strength	psi	4950	kg/cm <sup>2</sup>	347	MPa	34
Compressive Strength	psi	12500	kg/cm <sup>2</sup>	876	MPa	86
Permeability	Darcy	0.0005	Darcy	0.0005	Darcy	0.0005
Hardness	Rockwell "L"	100	Rockwell "L"	100	Rockwell "L"	100
C.T.E. (to 100 °C)	10 <sup>-6</sup> /°F	1.4	10 <sup>-6</sup> /°C	2.4	10 <sup>-6</sup> /K	2.4
Thermal Conductivity	BTU-ft/hr ft <sup>2</sup> °F	64	W/mK	111	W/mK	111
Ash Content	%	.09	%	.09	%	.09

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101 N. Philippi Pike, Anmoore, WV 26323-0120  
Ph: +1-800-842-8805; +1-304-624-1253

La Lechere, 73264 Aigueblanche Cedex, France  
Ph: +33 04 79 41 45 00

Via Forno Allione, 2, I-25040 Malonno, Brescia, Italy  
Ph: +39 03 64 63 01 31

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