



# 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 <sup>3</sup>	112	g/cm <sup>3</sup>	1.80	g/cm <sup>3</sup>
Average 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>	1089	GPa	10.7
Tensile Strength	psi	4500	kg/cm <sup>2</sup>	316	MPa	31
Compressive Strength	psi	11000	kg/cm <sup>2</sup>	773	MPa	76
Permeability	Darcy	0.0005	Darcy	0.0005	Darcy	0.0005
Hardness	Rockwell "L"	70	Rockwell "L"	70	Rockwell "L"	70
C.T.E. (to 100 °C)	10 <sup>-6</sup> / °F	1.7	10 <sup>-6</sup> / °C	3.0	10 <sup>-6</sup> / 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

