

# ATC™ Graphite

Technical Data Sheet 5079

## Product Overview

GrafTech's GRAFSTAR ATC graphite is a premium fine grain graphite, isostatically molded to the most demanding quality standards. It can be machined to very precise tolerances and a polished surface finish. This grade is specifically manufactured for continuous casting mold and die applications.

## Applications

- Continuous casting dies
- Hot pressing dies and molds

## Sizes

- 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\*

Characteristic	Unit	WG	Unit	WG	Unit	WG
Density	lbs/ft <sup>3</sup>	109	g/cm <sup>3</sup>	1.75	g/cm <sup>3</sup>	1.75
Maximum Particle Size	inches	0.001	mm	0.03	mm	0.03
Specific Resistance	10 <sup>-6</sup> Ωin.	5.7	μΩm	14.5	μΩm	14.5
Flexural Strength	psi	4450	kg/cm <sup>2</sup>	300	MPa	31
Young's Modulus	10 <sup>6</sup> psi	1.65	kg/mm <sup>2</sup>	1157	GPa	11.4
Tensile Strength	psi	4110	kg/cm <sup>2</sup>	288	MPa	28
Compressive Strength	psi	10200	kg/cm <sup>2</sup>	715	MPa	70
Permeability	Darcy	0.003	Darcy	0.003	Darcy	0.003
Hardness	Rockwell "L"	90	Rockwell "L"	90	Rockwell "L"	90
C.T.E. (to 100 °C)	10 <sup>-6</sup> /°F	1.6	10 <sup>-6</sup> /°C	2.9	10 <sup>-6</sup> /K	2.9
Thermal Conductivity	BTU-ft/hr ft <sup>2</sup> °F	58	W/mK	100	W/mK	100
Ash Content	%	.09	%	.09	%	.09

Notes:

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

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**Redefining limits**