

Grade ATJ™ Isomolded Graphite

Since 1886, UCAR Carbon Company has been supplying quality carbon and graphite products, skilled technical service, and experienced application assistance worldwide.

Advanced Graphite Materials

Grade ATJ™ Isomolded Graphite

Isostatically molded UCAR® Grade ATJ has been an industry standard for years. It is a fine grain, high strength material which can be machined to precise tolerances and a fine surface finish. UCAR Grade ATJ has unique thermal shock resistance due to the combination of low thermal expansion, high thermal conductivity and low elastic modulus.

Typical Applications

- Permanent molds
- Continuous casting dies
- Rocket motor nozzles
- Composite tooling
- Hot pressing molds and punches
- Plungers & rams

Sizes

Grade ATJ Isomolded: 16 x 16 x 65" rectangles
 12 x 25 x 80" rectangles
 8" – 24" diameter x 72" long rounds

Typical Properties at Room Temperature

	ENGLISH		METRIC	
Density	lbs/ft ³	110	g/cm ³	1.76
Average Particle Size	inches	0.001	mm	0.025
Specific Resistance	10 ⁻⁴ Ω in.	4.61	μΩm	11.7
Flexural Strength	psi	4250	kg/cm ²	300
Young's Modulus	10 ⁻⁶ psi	1.40	kg/mm ²	980
Tensile Strength	psi	3740	kg/cm ²	260
Compressive Strength	psi	9700	kg/cm ²	680
Permeability	Darcy	0.002	Darcy	0.002
Hardness	Rockwell "L"	60	Rockwell "L"	60
C.T.E. (to 100 °C)	10 ⁻⁶ /°F	1.4	10 ⁻⁶ /°C	2.5
Thermal Conductivity	BTU-ft/hr ft ² °F	67	W/mK	115
Ash Content	%	0.09	%	0.09

This information is not to be taken as a warranty of representation for which we will assume legal responsibility nor permission or recommendation to practice any patented invention without license. It is offered solely for your consideration, investigation and verification. UCAR is a registered trademark licensed for use to GrafTech International Ltd. Grade ATJ is a trademark of UCAR Carbon Company.

P.O. Box 2230, Clarksburg, WV 26302-2330
 Phone 1-800-842-8805; Fax 1-304-624-1269
 Rev. 6.03



GRAFTech
 GrafTech International Ltd.

www.graftech.com
www.ucar.com

Copyright 2003 GrafTech International Ltd.