



Technical Data Sheet

GRADE ATR ISOMOLDED GRAPHITE

Product Overview

Isostatically molded ATR is a lower density version of grade ATJ. It is a fine grain, high strength material which can be machined to precise tolerances and a fine surface finish.

Applications

- Rocket motor nozzles
- Hot pressing molds
- Mold cores
- Plungers & rams

Sizes*

- 16 x 16 x 65" and 12 x 25 x 80" rectangles
- 8" - 24" diameter x 72" long rounds

Typical Properties at Room Temperature**

Characteristic	ENGLISH	WG	METRIC	WG
Density	lbs/ft ³	105	g/cm ³	1.68
Average Particle Size	Inches	0.001	mm	0.025
Specific Resistance	10 ⁻⁴ μΩm in.	4.92	μΩm	12.5
Flexural Strength	psi	3700	kg/cm ²	260
Young's Modulus	10 ⁶ psi	1.16	kg/mm ²	820
Tensile Strength	psi	3000	kg/cm ²	210
Compressive Strength	psi	8000	kg/cm ²	560
Permeability	Darcy	0.015	Darcy	0.015
Hardness	Rockwell "L"	45	Rockwell "L"	45
C.T.E. (to 100 °C)	10 ⁻⁶ /°F	1.4	10 ⁻⁶ /°C	2.5
Thermal Conductivity	BTU-ft/hr ft ² °F	58	W/mK	100
Ash Content	%	0.09	%	0.09

Notes:

* Other sizes available upon request

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