



GRAFSTAR™ AGSX Grade Graphite

Technical Data Sheet

Product Overview

Densified prior to graphitization, GRAFSTAR™ AGSX graphite material is good for applications requiring higher densities and good mechanical properties, and lower C.T.E.

Applications

- Block heat exchangers
- Resistance heaters
- Furnace parts & fixtures
- Casting molds
- Powder metallurgy

Sizes*

Standard Sizes	
English	Metric
3-9 in dia x72 in rounds	75-225 mm dia x 1829 mm rounds
17x17x72-to-108 in rectangles	430x430x1829-to-2743 mm rects

Typical Properties at Room Temperature**

Characteristic	English Units	WG		AG	Metric Units	WG		AG	SI Units	WG		AG
Bulk Density	lbs/ft ³	107			g/cm ³	1.71			g/cm ³	1.71		
Maximum Particle Size	inches	0.03			mm	0.76			mm	0.76		
Specific Resistance	10 ⁻⁴ Ω-in	2.8	3.9		μΩm	7.1	9.9		μΩm	7.1	9.9	
Flexural Strength	psi	3350	2200		kg/cm ²	235	155		MPa	23	15	
Young's Modulus	10 ⁶ psi	1.9	1.0		kg/mm ²	1335	703		GPa	13.1	6.9	
Tensile Strength	psi	2750	1600		kg/cm ²	193	112		MPa	19	11	
Compressive Strength	psi	6500	6500		kg/cm ²	457	457		MPa	45	45	
Permeability	Darcy	0.01	0.01		Darcy	0.01	0.01		Darcy	0.01	0.01	
Hardness	Rockwell "R"	75			Rockwell "R"	75			Rockwell "R"	75		
C.T.E. (to 100 °C)	10 ⁻⁶ / °F	0.7	1.7		10 ⁻⁶ / °C	1.3	3.1		10 ⁻⁶ / K	1.3	3.1	
Thermal Conductivity	BTU/hr-ft-°F	100	70		W/m-K	173	121		W/m-K	173	121	
Ash Content	%	0.15			%	0.15			%	0.15		

Notes:

* Other sizes available upon request

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

