

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/cm³	1.71		g/cm³	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

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