



# GRAFSTAR™ AGSX Graphite

## Technical Data Sheet 5077

### Product Overview

Densified prior to graphitization, GRAFSTAR™ AGSX material is good for applications requiring high densities and good mechanical properties.

### Applications

- Furnace parts
- Powder metallurgy

### Sizes\*

- 3"-9" diameter rounds
- Available in 40", 48", 60", 65", & 72" lengths
- 75 - 225 mm diameter rounds
- Available in 1016, 1219, 1524, 1651, & 1829 mm lengths

### Typical Properties at Room Temperature\*\*

Characteristic	Unit	WG	AG	Unit	WG	AG
Density	lbs/ft <sup>3</sup>	107		g/cm <sup>3</sup>	1.72	
Maximum Particle Size	inches	0.03		mm	0.76	
Specific Resistance	10 <sup>-4</sup> Ωin	2.8	3.9	μΩm	7	10
Flexural Strength	psi	3350	2200	MPa	23	15
Young's Modulus	10 <sup>6</sup> psi	1.9	1.0	GPa	13	7
Tensile Strength	psi	2750	1600	MPa	19	11
Compressive Strength	psi	6500		MPa	45	
Permeability	Darcy	0.008	0.004	Darcy	0.008	0.004
Thermal Conductivity	BTU-ft/hr ft <sup>2</sup> °F	100	70	W/mK	170	120
CTE (RT to 100 °C)	10 <sup>-6</sup> /°F	0.7	1.7	10 <sup>-6</sup> /K	1.2	3.1
Ash Content	%	0.15		%	0.15	
Porosity	%	16		%	16	

#### Notes:

\* Other sizes available upon request

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

