



# GRAFSTAR™ AGSR Extruded Graphite

## Technical Data Sheet

### Product Overview

GRAFSTAR™ AGSR graphite material is a cost effective extruded graphite with good physical and mechanical properties, and low coefficient of thermal expansion (C.T.E.).

### Applications

- Furnace parts & fixtures
- Graphite runout liners

### Sizes

Standard Sizes	
English	Metric
3-6 in dia x72 in rounds	75-150 mm dia x 1829 mm rounds
Rectangles available upon request.	305 x 635 x 2032 mm

### Typical Properties at Room Temperature\*

Characteristic	English Units	WG		AG	Metric Units	WG		AG	SI Units	WG		AG
Bulk Density	lbs/ft <sup>3</sup>	101			g/cm <sup>3</sup>	1.62			g/cm <sup>3</sup>	1.62		
Maximum Particle Size	inches	0.03			mm	0.76			mm	0.76		
Specific Resistance	10 <sup>-4</sup> Ω-in	3.3	3.9		μΩm	8.4	9.9		μΩm	8.4	9.9	
Flexural Strength	psi	2046	1800		kg/cm <sup>2</sup>	144	126		MPa	14	12	
Young's Modulus	10 <sup>6</sup> psi	1.3	1.0		kg/mm <sup>2</sup>	885	668		GPa	8.7	6.6	
Tensile Strength	psi	1337	1200		kg/cm <sup>2</sup>	94	84		MPa	9	8	
Compressive Strength	psi	3850	4000		kg/cm <sup>2</sup>	271	281		MPa	27	28	
Permeability	Darcy	0.21	0.16		Darcy	0.21	0.16		Darcy	0.21	0.16	
Hardness	Rockwell "R"	65			Rockwell "R"	65			Rockwell "R"	65		
C.T.E. (to 100 OC)	10 <sup>-6</sup> / °F	0.7	1.7		10 <sup>-6</sup> / °C	1.3	3.1		10 <sup>-6</sup> / K	1.3	3.1	
Thermal Conductivity	BTU/hr-ft-°F	82	74		W/m-K	142	128		W/m-K	142	128	
Ash Content	%	0.15			%	0.15			%	0.15		

#### Notes:

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

