

# 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/ft³	101		g/cm³	1.62		g/cm³	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/mm²	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 0C)	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	



© 2021 Amsted Graphite Materials LLC. This information is based on data believed to be reliable but Amsted Graphite Materials LLC makes no warranties, express or implied, as to its accuracy and assumes no liability arising out of its use. The data listed falls within the normal range of product properties but should not be used to establish specification limits or used alone as the basis of design. Amsted Graphite Materials LLC's liability to purchasers is expressly limited to the terms and conditions of sale. GRAFSTAR is a trademark of Amsted Graphite Materials LLC.

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