



# GRAFSTAR™ CBY Grade Graphite

## Product Overview

GRAFSTAR™ CBY graphite is a general purpose, cost effective extruded graphite with improved strength, structure, and density characteristics. It is a low ash graphite for superior oxidation resistance.

## Applications

- Heat treatment boats and trays
- Fused refractory molds
- Induction furnace susceptors
- Furnace parts & fixtures
- Aluminum runout tables
- Pipe slides

## Sizes

Standard Sizes	
English	Metric
3-30 in dia x 72 in rounds	75-to-762 mm dia x 1829 mm rounds
12x12x72 in rectangles	304x304x1829 mm rectangles
15x30x72-to-108 in rects	381x762x1829-to-2743 mm rects
17x17x72-to-108 in rects	432x432x1829-to-2743 mm
20x20x72-to-108 in rects	508x508x1829-to-2743 mm
24x24x72-to-88 in rects	609x609x1829-to-2235 mm

## Typical Properties at Room Temperature\*

Characteristic	English Units	WG		Metric Units	WG		SI Units	WG	
		AG	AG		AG	AG			
Bulk Density	lbs/ft <sup>3</sup>	104		g/cm <sup>3</sup>	1.67		g/cm <sup>3</sup>	1.67	
Average Particle Size	inches	0.03		mm	0.76		mm	0.76	
Specific Resistance	10 <sup>-4</sup> Ω-in	3.2	3.9	μΩm	8.1	9.9	μΩm	8.1	9.9
Flexural Strength	psi	2400	1900	kg/cm <sup>2</sup>	169	134	MPa	17	13
Young's Modulus	10 <sup>6</sup> psi	1.32	0.96	kg/mm <sup>2</sup>	927	675	GPa	9.1	6.6
Tensile Strength	psi	1950	1300	kg/cm <sup>2</sup>	137	91	MPa	13	9
Compressive Strength	psi	5200	5350	kg/cm <sup>2</sup>	365	376	MPa	36	37
Permeability	Darcy	0.13	0.16	Darcy	0.13	0.16	Darcy	0.13	0.16
Hardness	Rockwell "R"	70		Rockwell "R"	70		Rockwell "R"	70	
C.T.E. (to 100 °C)	10 <sup>-6</sup> /°F	1.4	2.0	10 <sup>-6</sup> /°C	2.5	3.6	10 <sup>-6</sup> /K	2.5	3.6
Thermal Conductivity	BTU/hr-ft-°F	85	75	W/m-K	147	130	W/m-K	147	130
Ash Content	%	0.09		%	0.09		%	0.09	

### Notes:

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

