

# CBY Graphite

Technical Data Sheet 5080

## 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 treating boats and trays
- Fused refractory molds
- Induction furnace susceptor
- Furnace parts
- Aluminum runout tables

## Sizes

- 10 – 24 x 72” diameter rounds
- 12 x 14 x 72”
- 15 x 30 x 72”
- 17 x 17 x 72”
- 17 x 17 x 88”
- 19 x 19 x 72”
- 24 x 24 x 72” rectangles

## Typical Properties at Room Temperature\*

Characteristic	Unit	WG	AG	Unit	WG	AG
Density	lbs/ft <sup>3</sup>	104		g/cm <sup>3</sup>	1.66	
Maximum Particle Size	inches	0.03		mm	0.76	
Specific Resistance	10 <sup>-4</sup> Ωin	3.2	3.9	μΩm	8.1	9.9
Flexural Strength	psi	2400	1900	kg/cm <sup>2</sup>	170	140
Young's Modulus	10 <sup>6</sup> psi	1.32	0.96	kg/mm <sup>2</sup>	930	680
Tensile Strength	psi	1950	1300	kg/cm <sup>2</sup>	140	90
Compressive Strength	psi	5200	5350	kg/cm <sup>2</sup>	370	380
Permeability	Darcy	0.13	0.16	Darcy	0.13	0.16
Hardness	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> /°K	2.5	3.6
Thermal Conductivity	BTU-ft/hr ft <sup>2</sup> °F	85	75	W/mK	145	130
Ash Content	%	0.07		%	0.07	

Notes:

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

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**Redefining limits**