



Technical Data Sheet 5080

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 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 ³	104		g/cm ³	1.66	
Maximum Particle Size	inches	0.03		mm	0.76	
Specific Resistance	10 ⁻⁴ Ωin	3.2	3.9	μΩm	8.1	9.9
Flexural Strength	psi	2400	1900	kg/cm ²	170	140
Young's Modulus	10 ⁶ psi	1.32	0.96	kg/mm ²	930	680
Tensile Strength	psi	1950	1300	kg/cm ²	140	90
Compressive Strength	psi	5200	5350	kg/cm ²	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 ⁻⁶ /°F	1.4	2.0	10 ⁻⁶ /°K	2.5	3.6
Thermal Conductivity	BTU-ft/hr ft ² °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