



GRAFSTAR™ SLX Grade Graphite

Technical Data Sheet

Product Overview

GRAFSTAR™ SLX graphite is a medium grain graphite with high strength properties that excels in higher temperature applications. And with its higher coefficient of thermal expansion (C.T.E.), it is a very attractive match for Si / SiC application environments.

Applications

- CZ silicon crystal growth
- Quartz processing
- Purified electronic fixturing
- Polysilicon seed chucks

Sizes*

Standard Sizes	
English	Metric
22-26 dia x 7" rounds	560-660 mm dia x 1828 mm rounds

Typical Properties at Room Temperature**

Characteristic	English Units	WG		Metric Units	WG		SI Units	WG	
		WG	AG		AG	AG			
Bulk Density	lbs/ft ³	112		g/cm ³	1.80		g/cm ³	1.80	
Maximum Particle Size	inches	0.03		mm	0.76		mm	0.76	
Specific Resistance	10 ⁻⁴ Ω-in	2.8	3.7	μΩm	7.1	9.4	μΩm	7.1	9.4
Flexural Strength	psi	3580	2955	kg/cm ²	252	208	MPa	25	20
Young's Modulus	106 psi	1.6	1.4	kg/mm ²	1117	949	GPa	11.0	9.3
Tensile Strength	psi	2700	2100	kg/cm ²	190	148	MPa	19	14
Compressive Strength	psi	8300	8300	kg/cm ²	583	583	MPa	57	57
Permeability	Darcy	0.005	0.005	Darcy	0.01	0.01	Darcy	0.01	0.01
Hardness	Rockwell "R"	95		Rockwell "R"	95		Rockwell "R"	95	
C.T.E. (to 100 °C)	10 ⁻⁶ / °F	1.7	2.0	10 ⁻⁶ / °C	3.1	3.6	10 ⁻⁶ / K	3.1	3.6
Thermal Conductivity	BTU/hr-ft-°F	98	87	W/m-K	170	151	W/m-K	170	151
Ash Content	%	0.15		%	0.15		%	0.15	

Notes:

- * Other round sizes can be made available on a made-to-order basis.
Rectangles can be made available on a made-to-order basis.
- ** Properties listed are typical and cannot be used as accept/reject specifications

