

Grade SL Extruded Graphite

Since 1886, UCAR Carbon Company has been supplying quality carbon and graphite products, skilled technical service, and experienced application assistance worldwide.

Advanced Graphite Materials

GRADE SL EXTRUDED GRAPHITE

Densified prior to graphitization, Grade SL is an extruded graphite for applications requiring higher densities and good mechanical strength.

Typical Applications

- CZ silicon crystal growth
- Quartz
- Casting molds and furnace parts for hot metal

Sizes

20" & 22" diameter rounds
 500 and 550 mm cross-section rounds
 Other sizes available on request

Typical Properties at Room Temperature

	<u>ENGLISH</u>	<u>WG</u>	<u>AG</u>	<u>METRIC</u>	<u>WG</u>	<u>AG</u>	<u>SI</u>	<u>WG</u>	<u>AG</u>
Density	lbs/ft ³	110		g/cm ³	1.76		g/cm ³	1.76	
Maximum Particle Size	Inches	0.030		mm	0.76		mm	0.76	
Specific Resistance	10 ⁻⁴ Ω in.	2.9	3.4	μΩm	7.4	8.5	μΩm	7.4	8.5
Flexural Strength	psi	2900	2465	kg/cm ²	204	173	MPa	20	17
Young's Modulus	10 ⁻⁶ psi	1.45	1.23	kg/mm ²	1019	866	GPa	10.0	8.5
Tensile Strength	psi	2030	1740	kg/cm ²	143	122	MPa	14	12
Compressive Strength	psi	8000	8000	kg/cm ²	562	562	MPa	55	55
Permeability	Darcy	0.02	0.02	Darcy	0.02	0.02	Darcy	0.02	0.02
Hardness	Rockwell "R"	93		Rockwell "R"	93		Rockwell "R"	93	
C.T.E. (to 100 °C)	10 ⁻⁶ /°F	1.8	2.1	10 ⁻⁶ /°K	3.2	3.8	10 ⁻⁶ /°K	3.2	3.8
Thermal Conductivity	BTU-ft/hr ft ² °F	90	81	W/mK	156	140	W/mK	156	140
Ash Content	ppm	1500		ppm	1500		ppm	1500	

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P.O. Box 2230, Clarksburg, WV 26302-2330
 Phone 1-800-842-8805; Fax 1-304-624-1269
 Rev. 12.04

P.O. Box 10, F.73264 Aigueblanche Cedex, France
 Phone +33 4 79 22 32 22; Fax +33 4 79 22 32 01



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