U.S. GRAPHITE, INC.

Graphitar® Grade List

Important Note: Data based on average values from standard specimens, tested in the molding direction on conventional laboratory equipment. Variations may occur due to part configuration, fabrication techniques or methods of measurement. Values are typical and should not be used for specifications.

Grade	Scleroscope Hardness	Compressive Strength PSI	Transverse Breaking Strength PSI	Tensile Strength PSI	Modulus of Elasticity x 10^6 PSI	Coefficient of Thermal Expansion x 10^6 In./In./°F*	Thermal Conductivity BTU/Sq. Ft./°F./Hr.	Maximum Recommended Operating Temperature °F. In Air	Apparent Density Gm/cc	Available Porosity % Volume	Maximum Size** Sq. In.	Composition***
1	70	12,500	3,500	2,500	1.6	1.9	3.6	700	1.68	14	60	CG
14	90	38,000	11,000	8,500	2.8	3.0	4.6	500	1.85	0.5	60	CGR
18	75	20,000	5,500	3,500	2.1	2.2	4.7	700	1.70	12	75	CG
30-A	85	25,000	7,000	5,500	18	2.5	3.7	700	1.68	13	45	CG
34	88	18,000	6,000	3,500	1.2	2.5	4.8	700	1.65	14	45	CGR
35	98	38,000	11,000	7,000	2.1	3.9	5.9	500	1.7	0.7	45	CGR
38	100	35,000	10,500	8,500	2.5	3.6	3.8	500	1.80	2	45	CGR
39	100	38,000	11,500	9,000	2.5	3.4	3.8	500	1.82	1	45	CGR
40	85	28,000	9,000	6,500	2.5	3.0	4.1	500	1.82	3.4	60	CGR
47	95	36,000	11,000	9,500	3.0	2.7	6.4	500	1.88	0.5	60	CGR
48	45	4,500	2,500	1,000	0.5	1.2	27.0	750	1.72	17	45	G
64	35	5,000	3,000	2,500	1.8	1.0	27.0	700	1.80	9	75	CG
67	75	13,000	6,500	4,000	1.6	2.1	5.3	700	1.72	11	45	CG
70	85	28,000	8,000	6,500	2.2	3.2	5.5	500	1.80	3	45	CGR
77	60	12,000	6,000	3,500	1.5	2.8	28.0	500	1.88	3	60	GR
80	75	25,000	10,000	5,500	2.4	2.3	7.0	700	1.80	7	45	CG
84	80	30,000	11,000	6,500	2.8	2.3	7.0	700	1.85	6	45	CG
86	90	36,000	12,500	9,500	3.0	2.3	7.6	500	1.90	0.5	45	CGR
88	95	28,000	8,000	6,000	1.8	2.9	3.9	350	1.80	0.5	45	CGR
92	90	32,000	8,800	7,000	2.8	3.2	5.1	500	1.82	3	75	CGR
94	90	30,000	8,500	6,000	2.2	3.5	5.5	500	1.82	1	45	CGR
95	40	6,000	3,500	3,000	2.0	1.5	27.5	350	1.85	1	45	GR
101	85	38,000	10,500	8,500	2.9	2.9	7.0	350	2.75	1	75	CGB
102	88	38,000	9,500	7,500	2.6	3.1	8.7	700	2.35	4	75	CGCu
103	89	35,000	10,500	7,500	2.8	3.1	9.3	700	2.70	3	75	CGAg
105	84	35,000	11,400	8,500	2.8	3.4	8.5	700	2.35	2	45	CGCuPb
107	92	38,000	10,000	7,500	3.5	2.4	7.0	700	2.20	1	75	CGSb
108	77	17,000	4,200	3,000	1.8	2.4	3.8	350	1.80	3	60	CGR
109	85	40,000	11,500	7,500	3.5	3.1	8.5	700	2.70	1	75	CGCuPb
110	92	32,000	10,000	8,500	3.3	2.3	8.0	700	1.9	1	45	CG
113	100	34,000	10,000	8,000	2.5	3.5	3.5	500	1.8	2	75	CGR
114	90	34,000	12,000	9,000	2.9	2.7	8.0	500	1.90	0.5	45	CGR
2413	60	7,000	2,500	1,000	1.0	2.3	4.1	700	1.55	20	50	CG
2690	97	23,000	6,400	5,000	1.4	2.4	20.6	1200	1.82	9	50	CGH
2767	90	25,000	8,000	6,000	2.0	3.4	5.5	500	1.83	0.5	45	CGR
2887	85	38,00	10,500	8,000	3.0	2.3	9.0	350	2.30	0.5	45	CGBR
2980	65	15,000	4,500	4,000	1.8	2.3	30.0	1000	1.85	4.0	50	CGH
3030	97	60,000	14,000	10,500	3.6	2.9	8.5	700	2.35	0.5		CGCrNi
3048	67	16,200	6,500	4,500	1.8	2.3	30.0	1000	1.85	5.0	50	CGH

**Average values at 70° to 500°F*
***Maximum size for optimum properties. Larger parts can usually be produced with some reduction of physical properties.*
****Composition: C=carbon, G=graphite, B=babbitt, Cu=copper, Sb=antimony, Ag=silver, Pb=lead, R=resin impregnated, H=High-temperature treated.*