Redco™ Polycarbonate
Technical Data Sheet

REDWOOD PLASTICS AND RUBBER

PROPERTIES	TEST METHOD	General Purpose	High Flex Modulus	20% Glass Reinforced
Physical Properties				
Specific Gravity	ASTM D 792	1.2	1.25	1.35
Specific Gravity in3/lb (cm3/g)	ASTM D 792	23 (636)	22.2 (614)	20.5 (567)
Water Absorption 24h, 1/8-in thk (%)	ASTM D 570	0.15	0.12	0.16
Mechanical Properties				
Tensile Strength psi (MPa)	ASTM D 638	9,000 - 10,500 (62-72)	8,000 - 9600 (55-66)	16,000 (110)
Elongation at Break (%)	ASTM D 638	110 - 125	10-20	4-6
Tensile Modulus psi (MPa)	ASTM D 638	340,000 (2345)	450,000 (3100)	860,000 (5900)
Flexural Strength psi (MPa)	ASTM D 790	11,000 - 15,000	15,000 (103)	19,000 (131)
Flexural Modulus psi (MPa)	ASTM D 790	300,000 - 340,000 (2070 - 2345)	500,000 (3450)	800,000 (5517)
Impact Strength, Izod ft-lb/in of Notch (J/m of notch)	ASTM D 256	12 - 16 (648-864)	2 (108)	2 (108)
Fatigue Endurance Limit, 107 Cycles pso (MPa)	ASTM D 671	1000 (6.9)	2000 (13.8)	5,000 (34.5)
Hardness, Rockwell M	ASTM D 785	62-70	85	91
Thermal Properties				
Thermal Conductivity Btu-in/hr-ft2-°F (w/m-K)	ASTM C 177	1.35 (0.19)	1.41 (0.21)	1.47 (0.22)
Coefficient of thermal expansion (105 -°C)	ASTM D 696	6.6 - 7.0	3.2	2.7
Deflection Temperature °F (°C)				
At 264 PSI	ASTM D 648	260 - 270 (127 - 132)	288 (142)	295 (146)
At 66 PSI	ASTM D 648	280 (138)	295 (146)	300 (149)
Flammability Rating		HB-V0	V-2, V-0	V-2, V-0

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Contact Us for a Quotation.

NORTH AMERICA 1.833.381.1195

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Electrical Properties				
Dielectric Strength Short Time @				
1/8-in thk, V/mill (KV/mm)	ASTM D 149	380 - 400 (15-16)	450 (17.8)	490 (19.4)
Dielectric Constant				
At 1 kHz	ASTM D 150	3.02		
Dissipation Factor				
At 1 kHz	ASTM D 150	0.0021		
Volume Resistivity (ohm-cm) at				
73 °F, 50% RH	ASTM D 257	$>10^{16}$	$>10^{16}$	$>10^{16}$
Arc Resistance (s), 120 mils	ASTM D 495	10 - 120	5-120	5-120
Optical Properties				
Refractive Index	ASTM D 542	1.586		
Transmittance (%)	ASTM D 1003	85-89		
Frictional Properties				
Coefficient of Friction				
Self		0.52		
Against Steel		0.39		