



			GLASS REINFORCED						
PROPERTY	ASTM or UL TEST	UNREINFORCED	20%	30%	30% CARBON REINFORCED				
PHYSICAL									
SPECIFIC GRAVITY	D792	1.32	1.43	1.49	1.44				
SPECIFIC VOLUME (in3/lb)	D792	21.0	19.3	18.6	-				
WATER ABSORPTION, 24h, 1/8-in thk (%)	D570	0.1	-	0.11	0.06				
MECHANICAL									
TENSILE STRENGTH	D638	14,000 - 16,000	17,800	14,000	19,000				
ELONGATION (%)	D638	40	2.5	2.2	5				
TENSILE MODULUS (Gpg, ksi)	D638	4.34, 500-630		6.89, 1000	7.58, 1100				
FLEXURAL STRENGTH (psi)	D790	24,700	27,800	23,000	25,750				
FLEXURAL MODULUS	D790	5.3	9.7	10	12.5				
IMPACT STRENGTH, IZOD (ft-lb/in of notch)	D256	1.6	1.6	0.8	1.03				
COMPRESSIVE STRENGTH	D695	17,100 - 20,000		22,000	29,000				
COMPRESSIVE MODULUS (Gpa, ksi)	D695	3.45, 500		3.79, 550					
HARDNESS	D785/D2240	85D, 99-100M		89D, 103M	93D, 102M				
COEFFICIENT OF FRICTION	vs. steel	0.4			0.2				
THERMAL									
THERMAL CONDUCTIVITY (BTU-m/ft ² -hr-°F)	F433	1.75	-	2.98	6.4				
COEFFICIENT OF LINEAR THERMAL EXPANSION (10-5 in/in- °C)	D696								
<150ºC		4.7	2.4	2.2	1.5				
>150ºC		10.8	-	-	-				
DEFLECTION TEMPERATURE (°F)	D648								
AT 264 PSI		320	545	450	518				
FLAMMABILTY RATING, 1/8 in	UL 94	V-0	V-0	V-0	V-0				
MAX TEMPERATURE (°F)		480 - 482		480	482				
ELECTRICAL									
DIELECTRIC CONSTANT	D150								
AT 1 KHz		3.3	-	-	-				
DISSIPATION FACTOR	D150								
AT 1 KHz		0.003	-	-	-				
VOLUME RESISTANCY (ohm-cm)	D257								
AT 73ºF, 50% RH		4.9 x 1016	-	-	1.4 x 105				
DIELECTRIC STRENGTH (KV/mm, V/mil)	D149	18.9, 480		19.7, 500	1.26, 32				

We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used. We accept no responsibility for results obtained by the application of this information or the safety and suitability of our products, whether alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each such product or product combination for their own purposes. Unless otherwise agreed in writing, we sell the products without warranty, and buyers and users assume all responsibility and liability for loss or damage arising from the handling and use of our products, whether used alone or in combination with other products. For most recent technical information, phone in USA or in Canada.



Redco™ POLYETHERETHERKETONE (PEEK)

PROPERTY	ASTM or UL TEST	UNREIN- FORCED	GLASS REINFORCED		30% CARBON REINFORCED
			20%	30%	
PHYSICAL	•	•	•		•
SPECIFIC GRAVITY	D792	1.32	1.43	1.49	1.44
SPECIFIC VOLUME in3/lb (cm3/g)	D792	21.0 (581)	19.3 (534)	18.6 (514)	-
WATER ABSORPTION, 24h, 1/8-in thk (%)	D570	0.5	-	0.11	0.06
MECHANICAL					-
TENSILE STRENGTH PSI (MPa)	D638	13,300 (92)	17,800 (123)	22,800 (157)	30,200 (208)
ELONGATION (%)	D638	50	2.5	2.2	1.3
TENSILE MODULUS	D638				
AT 302 °F		1.6	-	-	-
AT 356 °F		0.58	-	-	-
FLEXUAL STRENGTH PSI (MPa)	D790	24,700 (170)	27,800 (191)	33,800 (233)	46,100 (318)
FLEXURAL MODULUS	D790	5.3	9.7	15	18.9
IMPACT STRENGTH, Izod ft-lb/in OF NOTCH (J/m of notch)	D256	1.6 (86)	1.6 (86)	1.8 (97)	1.6 (86)
THERMAL					
THERMAL CONDUCTIVITY 10-4 cal-cm/sec-cm2- ^o C (10-4 BTU in/hr-ft2-°F)	C177	6.0 (1.75)	-	10.4 (3.02)	22.1 (6.43)
COEFFICIENT OF LINEAR THERMAL EXPANSION (10-5 in/in- ^Q C)	D696				
<150ºC		4.7	2.4	2.2	1.5
>150ºC		10.8	-	-	-
DEFLECTION TEMPERATURE ºF (°C)	D648				
AT 264 psi		320 (160)	545 (285)	600 (315)	600 (315)
FLAMMAILITY RATING, 1/8 in	UL 94	V-0	V-0	V-0	V-0
ELECTRICAL					
DIELECTRIC CONSTANT	D150				
AT 1 KHz		3.3	-	-	-
DISSIPATION FACTOR	D150				
AT 1 KHz		0.003	-	-	-
VOLUME RESISTANCY (ohm-cm)	D257				
AT 73ºF, 50% RH		4.9 x 1016	-	ļ.	1.4 x 105

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