



Redco™ PEEK

			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 (MPa)	D790	170.3	191.7	158.6	177.5
FLEXURAL MODULUS (MPa)	D790	0.036	0.067	0.069	0.086
IMPACT STRENGTH, IZOD (J/m of notch)	D256	85.4	85.4	42.7	55.0
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 (Cal-cm/sec-cm ² -°C)	F433	0.000604	-	0.00103	0.00221
COEFFICIENT OF LINEAR THERMAL EXPANSION (10-5 in/in- °C)	D696				
<150°C		4.7	2.4	2.2	1.5
>150°C		10.8	-	-	-
DEFLECTION TEMPERATURE (°C)	D648				
AT 264 PSI		160	285	232.2	270
FLAMMABILTY RATING, 1/8 in	UL 94	V-0	V-0	V-0	V-0
MAX TEMPERATURE (°C)		248.9 - 250		248.9	250
ELECTRICAL					
DIELECTRIC CONSTANT	D150			1	
AT 1 KHz	1	3.3	-	-	-
DISSIPATION FACTOR	D150				
AT 1 KHz		0.003	-	-	-
VOLUME RESISTANCY (ohm-in)	D257				
AT 73°F, 50% RH		1.93 x 10 ¹⁶	-	-	0.551 x 10 ⁵
DIELECTRIC STRENGTH (KV/mm)	D149	18.9		19.7, 500	1.26

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