

Redco™ POLYIMIDES (PI)

	ASTM or UL TEST		MOLDINGS FILLER			
PROPERTY		SHAPES				
			GLASS FIBER	25% GRAPHITE POWDER	15% GRAPHITE POWDER	LAMI- NATES
PHYSICAL						
SPECIFIC GRAVITY	D792	1.34	1.9	1.45	1.51	1.95
SPECIFIC VOLUME (in3/lb)	D792	-	14.5	19.0	18.3	14.1
WATER ABSORPTION, 24h, 1/8-in thk (%)	D570	0.4	0.2	0.6	0.2	0.3
MECHANICAL				<u> </u>		
TENSILE STRENGTH (psi)	D638	I				
AT 70ºF		20,300	27,000	5,700	9,500	50,000
AT 480ºF		16,000	23,000	3,600	5,500	35,000
ELONGATION (%)	D638	4	<1	<1	4.5	<1
FLEXURAL STENGTH (psi)	D790					
AT 70ºF		29,700	50,000	12,800	16,000	70,000
AT 480ºF		24,000	36,000	9,200	9,000	50,000
FLEXURAL MODULUS (105 psi)	D790		İ			
AT 70ºF		58.0	32.5	9	5.5	40
AT 480ºF		44.0	24.2	7.5	3.7	32
IMPACT STRENGTH, IZOD (ft-lb/in OF NOTCH)	D256	1.4	17	0.25	0.8	13
HARDNESS, ROCKWELL M	D785	110	20	110	88	-
THERMAL			'	<u> </u>		
THERMAL CONDUCTIVITY (Btu-in/hr-ft2- ºF)	C177	1.53	3.48	11.3	6.0	2.2
COEFFICIENT OF LINEAR THERMAL EXPANSION (10-5 in/in- °C)	D696	2.8	24.2	3.4	4.7	1
DEFLECTION TEMPERATURE (°F)	D648					
AT 264 psi		680	660	550	680	660
ELECTRICAL						
DIELECTRIC STRENGTH (V/mil)	D149					
SHORT TIME, 1/8-in thk		700	500	-	250	625
DIELECTRIC CONSTANT	D150					
AT kHz		3.41	4.7	1-	13.3	4.5
DISSIPATION FACTOR	D150					
AT 1 KHz		0.0038	0.003	-	0.006	0.015
VOLUME RESISTANCY (ohm-cm)	D257					
AT 73ºF, 50% RH		10 ¹⁸	5x10 ¹⁵	-	10 ¹⁴	6x10 ¹⁴
ARC RESISTANCE (s)	D495		180	-	-	180
FRICTIONAL						
COEFFICIENT OF FRICTION	-					
AGAINST STEEL, PV=10,000		-	-	0.24	0.24	-

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