

Redco[™] POLYETHERIMIDE (PEI)

	TEST METHOD		VALUE	
PROPERTY	ISO	ASTM	SI	ENGLISH
PHYSICAL	1			
SPECIFIC GRAVITY	1183	D792	0.3-1.5	1.3-1.5
WATER ABSORPTION, 24h, 1/8-in thk (%)			0.18-0.30	0.18-0.30
		I		
MECHANICAL				
TENSILE STRENGTH	527	D638	113-117 Mpa	16.5-17 kpsi
ELONGATION AT BREAK (%)	527	D638	2-80	2-80
TENSILE MODULUS	527	D638	3.3-5.9 GPa	0.48-0.85 Mpsi
FLEXURAL MODULUS	-	D790	3.4-6.2 GPa	0.50-0.90 Mpsi
COMPRESSIVE MODULUS	604	D695	3.3-4.1 GPa	0.48-0.60 Mpsi
NOTCHED IZOD IMPACT	180/1A	D256	27-54 J/m	0.5-1.0 ft-lb/in2
HARDNESS, ROCKWELL	2039-2	D785	M112-M115	M112-M115, R125, D86
COEFFICIENT OF FRICTION DYNAMIC	-	-	0.18-0.42	0.18-0.42
FLEXURAL STRENGTH		D790	138 Mpa	20,000 PSI
COMPRESSIVE STRENGTH	604	D695	152 Mpa	22,000 PSI
COMPRESSIVE MODULUS		D695	3.31 Gpa	480 ksi
THERMAL				
COEFFICIENT OF LINEAR THERMAL EXPANSION x 10-5	-	E831 (TMA)	2.0-5.6 mm/mm-ºC	1.1-3.1 in/in-ºF
HEAT DEFLECTION TEMPERATURE	75	D648		
AT 1.8 Mpa (264 psi)	-	D3418	199-210ºC	390-410ºF
GLASS TRANSITION TEMPERATURE	-	-	215ºC	419ºF
CONTINUOUS SERVICE TEMPERATURE IN AIR	-	UL 94	170ºC	338ºF
FLAMMAILITY	IEC 243	D149		
AT 3.1mm (0.125") ESTIMATED	IEC 93	D257	V-0	V-0
DIELECTRIC STRENGTH	IEC 250	D150	conductive - 33 kV/mm	conductive - 830 V/mil
VOLUME RESISTANCY	IEC 250	D150	10 ⁴ - 7 x 10 ¹⁷ ohm-cm	10 ⁴ - 2 x 10 ¹⁸ ohm-in
DIELECTRIC CONSTANT	62	D570		
AT 1 MHz			conductive - 5.15	conductive - 3.15
DISSIPATION FACTOR				
AT 1 MHz			conductive - 0.0013	conductive - 0.0013
THERMAL CONDUCTIVITY		F433	0.122 w/m-k	0.85 BTU-in/hr.ft-°F

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