

Redco[™] POLYAMIDE-IMIDE (PAI)

	TEST METHOD		VALUE	
PROPERTY	ISO	ASTM	SI	ENGLISH
PHYSICAL	1	1	1	
SPECIFIC GRAVITY	1183	D792	1.4-1.6	1.4-1.6
WATER ABSORPTION, 24h, 1/8-in thk (%)			0.3-0.4	0.3-0.4
MECHANICAL			1	
TENSILE STRENGTH	527	D638	68-162MPa	10-23 kpsi
ELONGATION AT BREAK (%)	527	D638	3-10	3-10
TENSILE MODULUS	527	D638	3-8	0.4-1.2 Mpsi
FLEXURAL MODULUS	-	D790	4-7	0.6-1 Mpsi
COMPRESSIVE MODULUS	604	D695	3-7	0.4-1.0 Mpsi
NOTCHED IZOD IMPACT	180/1A	D256	27-107	0.5-2.5 ft-lb/in2
HARDNESS, ROCKWELL	2039-2	D785, 2240	E66-E94, D90, M106-125	E66-R94, D90, M106-125
COEFFICIENT OF FRICTION DYNAMIC	-	-	0.2-0.35	0.2-0.35
FLEXTURAL STRENGTH		D790	138-207 Mpa	20,000-30,000 psi
COMPRESSIVE STRENGTH		D695	110-276 Mpa	16,000-40,000 ksi
THERMAL		1		
COEFFICIENT OF LINEAR THERMAL EXPANSION x 10-5	-	E831 (TMA)	1.4-3.6 mm/mm-ºC	0.8-2.0 in/in-ºF
HEAT DEFLECTION TEMPERATURE	75	D648		
AT 1.8 Mpa (264 psi)	-	D3418	271-282ºC	520-540ºF
GLASS TRANSITION TEMPERATURE	-	-	275⁰C	527ºF
CONTINUOUS SERVICE TEMPERATURE IN AIR	-	UL 94	260ºC	500ºF
FLAMMABILITY	IEC 243	D149		
AT 3.1mm (0.125") ESTIMATED	IEC 93	D257	V-0	V-0
THERMAL CONDUCTIVITY		F433	0.259-0.533 W/m-k	1.8-3.7 BTU-in/ft ² -hr-ºF
ELECTRICAL				
DIELECTRIC STRENGTH	IEC 250	D150	conductive - 25 kV/mm	conductive - 700 V/mil
VOLUME RESISTANCY	IEC 250	D150	conductive - 2x10 ¹⁷ ohm-cm	conductive - 2x10 ¹⁷ ohm-in
DIELECTRIC CONSTANT	62	D570		
AT 1 MHz		1	conductive - 4.2-6.0	conductive - 4.2-6.0
DISSIPATION FACTOR		1		
AT 1 MHz		1	 conductive - 0.026-0.05	conductive - 0.026-0.05
		1		

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