

## Redco™ ACRYLIC

	ASTM or UL TEST	MOLDING GRADE		
PROPERTY		CAST SHEET	STANDARD	HIGH IMPACT
PHYSICAL				
SPECIFIC GRAVITY	D792	1.19	1.19	1.15-1.17
SPECIFIC GRAVITY (in3/lb)	D792	23.3	23.3	24.1
WATER ABSORPTION, 24 h, 1/8-in thk, %	D570	0.2	0.3	0.3
MECHANICAL				
TENSILE STRENGTH, psi	D638	10,500	10,500	5,400-7,000
ELONGATION, %	D638	5	5	50
TENSILE MODULAS (105 psi)	D638	4.5	4.3	2.2-3.2
FLEXURAL SRENGTH, psi	D790	16,500	16,000	7,000-10,500
FLEXURAL MODULUS (105 psi)	D790	4.5	4.5	2.3-3.2
IMPACT STRENGTH, IZOD (ft-lb/in of notch)	D256	0.4	0.4	0.6-1.2
HARDNESS, ROCKWELL M	D785	M100-102	M95	R99-M68
THERMAL  COEFFICIENT OF THERMAL EX-	D696	3.9	3.6	3.8
PANSION(105 in/in-ºC)  DEFLECTION  TEMPERATURE, ºF	D648			
AT 264 psi		200-215	198	170-190
AT 66 psi		225	214	187
ELECTRICAL				
DIELECTRIC STRENGTH (V/mil) SHORT TIME, 1/8-in thk)	D149	500	500	383-450
DIELECTRIC CONSTANT	D150			
AT 1 kHz		3.3	3.3	3.9
AT 1 MHz		2.5	2.3	2.5-3.0
DISSIPATION FACTOR	D150			
AT 1 kHz		0.04	0.04	-
AT 1 MHz		0.02-0.03	0.02-0.03	0.01-0.02
VOLUME RESISTIVITY (ohm-cm) AT 73F, 50% RH	D257	>1017	>1017	>1017
ARC RESISTANCE (s), 120 mils	D495	No track	No Track	No track
OPTICAL				
REFRACTIVE INDEX	D542	1.49	1.49	1.49
TRANSMITTANCE, %	D1003	92	92	90

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PHYSICAL								
SPECIFIC GRAVITY	D792	1.19	1.19	1.15-1.17				
SPECIFIC GRAVITY in3/lb (cm3/g)	D792	23.3 (645)	23.3 (645)	24.1 (667)				
WATER ABSORPTION, 24 h, 1/8-in thk (%)	D570	0.2	0.3	0.3				
MECHANICAL								
TENSILE STRENGTH PSI (MPa)	D638	10,500 (72)	10,500 (72)	5,400-7,000 (37-48)				
ELONGATION (%)	D638	5	5	50				
TENSILE MODULAS PSI (MPa)	D638	450000 (3100)	430000 (2965)	220000-320000 (1517-2200)				
FLEXURAL SRENGTH PSI (MPa)	D790	16,500 (114)	16,000 (110)	7,000-10,500 (48-72)				
FLEXURAL MODULUS PSI (MPa)	D790	450000 (3100)	450000 (3100)	230000-320000 (1586-2200)				
IMPACT STRENGTH, IZOD ft-lb/in OF NOTCH (J/m of notch)	D256	0.4 (21.6)	0.4 (21.6)	0.6-1.2 (32.4-64.8)				
HARDNESS, ROCKWELL M	D785	M100-102	M95	R99-M68				



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THERMAL						
COEFFICIENT OF THERMAL EXPANSION (10-5 in/in-ºC)	D696	3.9	3.6	3.8		
DEFLECTION TEMPERATURE ºF (°C)	D648					
AT 264 PSI		200-215 (93-102)	198 (93)	170-190 (77-88)		
AT 66 PSI		225 (107)	214 (101)	187 (86)		
ELECTRICAL						
DIELECTRIC STRENGTH SHORT TIME, 1/8-in thk V/mil (KV/mm)	D149	500 (19.8)	500 (19.8)	383-450 (15.1-17.8)		
DIELECTRIC CONSTANT	D150					
AT 1 kHz		3.3	3.3	3.9		
AT 1 MHz		2.5	2.3	2.5-3.0		
DISSIPATION FACTOR	D150					
AT 1 kHz		0.04	0.04	-		
AT 1 MHz		0.02-0.03	0.02-0.03	0.01-0.02		
VOLUME RESISTIVITY (ohm-cm) AT 73F, 50% RH	D257	>1017	>1017	>1017		
ARC RESISTANCE (s), 120 mils	D495	No track	No Track	No track		
OPTICAL						
REFRACTIVE INDEX	D542	1.49	1.49	1.49		
TRANSMITTANCE (%)	D1003	92	92	90		