

Redco™ ACETALS

PROPERTY	ASTM OR UL TEST	COPOLYMER	HOMOPOLYMER
PHYSICAL			
SPECIFIC GRAVITY	D792	1.41	1.42
SPECIFIC GRAVITY in3/lb (cm3/g)	D792	19.7 (545)	19.5 (539)
WATER ABSORPTION, 24 h, 1/8-in thk (%)	D570	0.22	0.25
MECHANICAL			
TENSILE STRENGTH PSI (MPa)	D638		
At 73ºF (23°C)		8,800 (61)	10,000 (69)
At 160ºF (71°C)		5,000 (34)	6,900 (48)
ELONGATION*	D638	55	40
TENSILE MODULAS PSI (MPa)	D638	410000 (2828)	520000 (3587)
FLEXURAL SRENGTH PSI (MPa)	D790	13,000 (90)	14,100 (97)
FLEXURAL MODULUS PSI (MPa)	D790		
At 73ºF (23°C)		375000 (2586)	410000 (2828)
At 160ºF (71°C)		180000 (1241)	230000 (1586)
IMPACT STRENGTH, IZOD ft-lb/in (J/m)	D256		
NOTCHED		1.3 (70)	1.4 (76)
UNNOTCHED		20 (1080)	24 (1296)
FATIGUE ENDURANCE LIMIT, 107 CYCLES PSI (MPa)	D671	3,300 (22.7)	4,300 (29.8)
HARDNESS, ROCKWELL M	D785	80	94

^{*}At 0.2 in/min loading rate



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THERMAL	•	•	
THERMAL CONDUCTIVITY	C177		
104 cal-cm/sec-cm2-ºC)		5.5	8.9
(Btu-in/hr-ft2-ºF)		1.6	2.6
COEFFICIENT OF THERMAL EXPANSION -40 to +185°C (105 in/in-°C)	D696	8.5	10.0
DEFLECTION TEMPERATURE ºF (°C)	D648		
AT 264 PSI		205 (96)	277 (136)
AT 66 PSI		316 (157)	300 (149)
FLAMMABILITY RATING	UL94	НВ	НВ
ELECTRICAL			
DIELECTRIC STRENGTH SHORT TIME V/mil (KV/mm)	D149		
5 mils		2,100 (83)	3,000 (120)
20 mils		-	2,000 (79)
90 mils		500 (20)	500 (20)
DIELECTRIC CONSTANT	D150		
AT 1 kHz		3.7	3.7
AT 1 MHz		0.006	0.005
VOLUME RESISTIVITY (ohm-cm) AT 73F, 50% RH	D257	1014	1015
ARC RESISTANCE (s), 120 mils	D495	240 (burns)	220 (burns, no tracking)