

## Redco™ UHMW-PE NATURAL VIRGIN

PROPERTY	TYPICAL VALUES	ASTM or UL TEST
PHYSICAL		
DENSITY, g/cm3	0.930 - 0.940	ASTM D 792
HARDNESS, ROCKWELL R SCALE	64 - 68	ASTM D 785
DUROMETER (D/15)	68 - 72	ASTM D 2240
DEFLECTION TEMPERATURE °F (°C)		ASTM D 648
AT 66 psi	174 (79)	
AT 264 psi	115 (46)	
MECHANICAL		
TENSILE PROPERTIES		ASTM D 638
MAXIMUM STRENGTH, psi	4,800 – 6,200	2 in./min
MPa	33 - 43	
YIELD STRENGTH, psi	2,900 - 3,500	
MPa	20 - 24	
MODULUS, psi	100,000 - 150,000	
MPa	689 - 1033	
ELONGATION AT BREAK, %	300 - 450	
FLEXURAL MODULUS, psi	100,000 - 150,000	ASTM D 790
MPa	689 - 1033	
IZOD IMPACT STRENGTH AT 23°C, ft-lbs/in² (KJ/m²)		
NOTCHED	No break	ASTM D 256A
DOUBLE NOTCHED	> 20 (42)	Internal
MEAN COEFFICIENT OF LINEAR THERMAL EXPANSION PER °C	2 x 10- 4	ASTM D 696
COEFFICIENT OF FRICTION AGAINST CR-PLATED STEEL AT 23°C		ASTM D 1894
STATIC	.2025	
DYNAMIC	.1417	
ABRASION INDEX (RELATIVE TO STEEL AT 100)	10	Sand Slurry
TEMPERATURE		
RECOMMENDED OPERATING TEMPERATURE RANGE		Internal
MAXIMUM CONTINUOUS, °F (°C)	180 (82)	
MINIMUM CONTINUOUS, °F (°C)	-300 (-182)	
ELECTRICAL		
DIELECTRIC CONSTANT, 60 CYCLES TO 106 CYCLES	2.3-2.35	ASTM D 150
SURFACE RESISTIVITY, ohms	>101 6	ASTM D 257
VOLUME RESISTIVITY, ohms-cm	>101 6	ASTM D 257

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