



COMPOUND: 748HT

POLYMER: Ultra High Molecular Weight Polyethylene (UHMW-PE)

DESCRIPTION: High Operating Temperature Ultra High Molecular Weight Polyethylene (UHMW-PE) Compression Molded & Extruded Stock Shapes and Machined parts

Property	Test Method	Typical Values	Units
Specific Gravity	ISO 1183-1	0.93	-
Hardness	ISO 868	58	SHORE-D
Tensile Strength at Yield	ISO 527-1/-2	2,756 (19)	PSI (MPa)
Tensile Strain at Yield	ISO 527-1/-2	15	%
Tensile Strain at Break	ISO 527-1/-2	> 50	%
Tensile Modulus of Elasticity	ISO 527-1/-2	101,526 (700)	PSI (MPa)
Compressive Strength at nominal 1% Strain 5% Strain 10% Strain	ISO 604	870.23 (6) 1,450.38 (10) 2,320.60 (16)	PSI (MPa)
Charpy Impact Strength Unnotched Notched	ISO 179-1/1eU ISO 179-1/1eA	No Break 100P	kJ/m ²
Service Temperature Max. Short Periods Max. Continuous Minimum		275 (135) 230 (110) -328 (-200)	°F (°C)
Heat Deflection Temperature Method A @ 261 PSI (1.8 MPa)	ISO 71-1/-2	108 (42)	°F (°C)
Coefficient of Linear Thermal Expansion		11.0 X 10 ⁻⁵	INCH/INCH/°F
Relative Volume Loss, Sand- Water/Slurry Wear Test (TIVAR 1000 = 100)	ISO 15527	80	
Water Absorption at Saturation, 24 Hours		< 0.1	%

REVISION HISTORY

REV. NONE – Initial Release, 12-18-2014, RSK

REV. A – Modified specification and typical property values & data sheet format, 6-26-2020 RSK