



COMPOUND: 748OF

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

DESCRIPTION: Oil Filled Ultra High Molecular Weight Polyethylene (UHMW-PE) Extruded Stock Shapes and Machined parts

Property	Test Method	Internal Specification Values	Typical Values	Units
Specific Gravity	ASTM D792	0.91 – 0.97	0.94	-
Hardness	ASTM D2240	65 - 75	68	SHORE-D
Tensile Strength at Break	ASTM D638	5,500 (37.92) Minimum	7,000 (48.26)	PSI (MPa)
Tensile Strength at Yield	ASTM D638	3,000 (20.68) Minimum	4,000 (27.58)	PSI (MPa)
Elongation	ASTM D638	225 Minimum	275	%
Tensile Modulus	ASTM D638		120,000 (827.37)	PSI (MPa)
Flexural Modulus	ASTM D790		110,000 (758.42)	PSI (MPa)
Izod Impact Strength	ASTM D256		No Break	FT.LB/INCH
Compressive Modulus	ASTM D695		77,750 (536.07)	PSI (MPa)
Deformation @ 1,000 PSI, 24 Hours	ASTM D621		6 - 8	%
Coefficient of Linear Thermal Expansion	ASTM D686		7.8 X 10 ⁻⁵	INCH/INCH/°F
Coefficient of Friction (Against Polished Steel) Static Dynamic	ASTM D1894		0.15 – 0.20 0.10 – 0.14	
Water Absorption, 24 Hours	ASTM D570		Nil	%
Maximum Service Temperature	ASTM D648		< 200 (93.33)	°F (°C)

REVISION HISTORY

REV. NONE – Initial Release, 6-29-2003, BJ

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

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