

Material Data Sheet A50F

COMPOUND: A50F

POLYMER: Polytetrafluoroethylene (PTFE)

DESCRIPTION: Polymer Filled PTFE Compound, Compression and Isostatic Molded Stock

Shapes and Machined parts

Property	Test Method	Internal Specification Values	Typical Values	Units
Specific Gravity	ASTM D792	1.94 – 2.02	1.98	-
Hardness	ASTM D2240	55 - 65	60	SHORE-D
Tensile Strength at Break	ASTM D1708	2,800 (19.31) Minimum	3,300 (22.75)	PSI (MPa)
Elongation	ASTM D1708	210 Minimum	260	%
Compressive Strength 0.2% Offset 5% Strain	ASTM D695		1,190 (8.20) 1,020 (7.03)	PSI (MPa)
Total Deformation Under Load 24 HRS @ 2,000 PSI (13.79 MPa) at 73 °F (22.9 °C)	ASTM D621		8.90	%
Permanent Deformation After 24 HRS Relaxation	ASTM D621		5.20	%
Flexural Strength 1% Strain 3% Strain	ASTM D790		1,200 (8.27) 2,150 (14.82)	PSI (MPa)
Flexural Modulus	ASTM D790		127,000 (875.63)	PSI (MPa)
Coefficient of Friction Wear Rate @ 200 PSI (1.38 MPa), 50 FPM (15.24 m/min) Carbon steel Counterface	ASTM D3702		0.175 1.94 X 10 ⁻⁷	INCH/MIN
Coefficient of Linear Thermal Expansion 70 - 200 °F (21.1 – 93.3 °C) 70 - 300 °F (21.1 – 148.9 °C) 70 - 400 °F (21.1 – 204.4 °C) 70 - 500 °F (21.1 – 260.0 °C)			5.40 (9.72) 5.90 (10.62) 6.40 (11.52) 7.20 (12.96)	X 10 ⁻⁵ °F ⁻¹ (°C ⁻¹)

REVISION HISTORY
REV. NONE – Initial Release, 11-03-2015 RSK
REV. A – Updated typical values of Tensile Strength & Elongation values and data sheet format on new template