



COMPOUND: A90

POLYMER: Polytetrafluoroethylene (PTFE)

DESCRIPTION: Carbon-Graphite Filled PTFE, Compression and Isostatic Molded Stock Shapes and Machined parts

Property	Test Method	Internal Specification Values	Typical Values	Units
Specific Gravity	ASTM D792	2.03 – 2.11	2.07	-
Hardness	ASTM D2240	60 - 70	65	SHORE-D
Tensile Strength at Break	ASTM D1708	1,750 (12.06) Minimum	2,200 (15.17)	PSI (MPa)
Elongation	ASTM D1708	70 Minimum	120	%
Flexural Strength 1.0% Strain 3.0% Strain	ASTM D790		1,200 (8.27) 1,950 (13.44)	PSI (MPa)
Flexural Modulus	ASTM D790		1.70 X 10 ⁵ (1,172)	PSI (MPa)
Deformation @ 2,000 PSI, 24 HRS 0.2% Offset 5% Strain	ASTM D621		2.98 1.39	%
Coefficient of Thermal Expansion Axial (Molding) Direction 70 °F – 200 °F (21 °C – 93 °C) 70 °F – 300 °F (21 °C – 149 °C) 70 °F – 400 °F (21 °C – 204 °C) 70 °F – 500 °F (21 °C – 260 °C) Transverse (Perpendicular) Direction 70 °F – 200 °F (21 °C – 93 °C) 70 °F – 300 °F (21 °C – 149 °C) 70 °F – 400 °F (21 °C – 204 °C) 70 °F – 500 °F (21 °C – 260 °C)	ASTM E831		6.93 (12.47) 7.69 (13.84) 8.61 (15.50) 10.09 (18.16) 5.09 (9.16) 5.52 (9.94) 6.23 (11.21) 7.34 (13.20)	X10 ⁻⁵ °F ⁻¹ (°C ⁻¹)
Coefficient of Friction @ 33.33 PSI, 150 FPM	ASTM D3702		0.09	

REVISION HISTORY

REV. NONE – Initial Release, 2-28-2014 RSK
REV. A – Modified Tensile Spec Properties, 7-18-2018, RSK
REV. B – Updated CTE Data, 9-19-2018, RSK
REV. C – Updated SG spec value & data sheet format, RSK, 6-15-2020

The descriptions, design and performance information, and recommended uses for the products, tests and data described herein are based generally on our design and manufacturing experience, product testing in specific conditions, and industry standards. The foregoing information is for general guidance only and does not constitute a guaranty or warranty of design or warranty of performance. All warranties regarding the products described herein will be given in writing at the time of sale of such products. Each purchaser of such products must decide if the products are suitable to the intended use of such purchaser. Arylex®, CDI Energy Products®, OptiSeal® & OptiPak® are registered trademarks of J.H. Fenner & Co. Limited.