



**COMPOUND:** ARYLEX® A451

**POLYMER:** Polyetheretherketone (PEEK)

**DESCRIPTION:** 30% Carbon Fiber Reinforced PEEK Compound. Compression molded stock shapes and machined parts

Property	Test Method	Internal Specification Values	Typical Values	Units
Specific Gravity	ASTM D792	1.41 – 1.47	1.44	-
Hardness	ASTM D2240	85 - 95	90	SHORE-D
Tensile Strength at Break	ASTM D1708	11,500 (79.3) Minimum	17,000 (117.2)	PSI (MPa)
Elongation at Break	ASTM D1708	2.00 Minimum	6.00	%
Tensile Modulus, Secant 0.5%	ASTM D1708		625 (4,309)	KSI (MPa)
Compressive Strength Compressive Modulus	ASTM D695		15,000 (103.42) 622 (4,289)	PSI (MPa) KSI (MPa)
Flexural Strength Flexural Modulus	ASTM D790		38,000 (262.00) 1,100 (7,584)	PSI (MPa) KSI (MPa)
Coefficient of Friction P 200 PSI, V 100 FPM	ASTM D3702		0.451	
Coefficient of Linear Thermal Expansion 78 - 500 °F (25.5 – 260 °C)	ASTM E831		1.50 (2.7)	X 10 <sup>-5</sup> °F <sup>-1</sup> (°C <sup>-1</sup> )
Heat Distortion Temperature @ 264 PSI	ASTM D648		600 (315)	°F (°C)
Maximum Continuous Service Temperature			500 (260)	°F (°C)

REV. B – Updated company name and disclaimer statement, 4-14-2023 RSK

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