



COMPOUND: ARYLEX® 745 (Formerly designated as Xytrex 450 Injection Molded)

POLYMER: Polyetheretherketone (PEEK)

DESCRIPTION: Unfilled (Virgin) PEEK, Injection molded finish parts, stock shapes, and machined parts.

Property	Test Method	Internal Specification Values	Typical Values	Units
Specific Gravity	ASTM D792	1.28 – 1.32	1.30	-
Hardness	ASTM D2240	82 - 88	85	SHORE-D
Tensile Strength at Yield	ASTM D638	13,053 (90.00) Minimum	14,500 (99.97)	PSI (MPa)
Tensile Strength at Break	ASTM D638	10,878 (75.00)	13,500 (93.08)	PSI (MPa)
Tensile Elongation at Break	ASTM D638	50 Minimum	60	%
Tensile Young's Modulus	ASTM D638		522 (3.60)	KSI (GPa)
Flexural Modulus	ASTM D790	493.13 (3.4)	530.8 (3.66)	KSI (GPa)
Flexural Strength	ASTM D790	18,130 (125)	24,700 (170.3)	PSI (MPa)
Shear Strength	ASTM D3846		7,700 (53.09)	PSI (MPa)
Shear Modulus	ASTM D3846		188.5 (1.30)	KSI (GPa)
Izod Impact Strength, Notched	ASTM D256	60 Minimum	90	J/m
Water Absorption Saturation at 23 °C Saturation at 100 °C	ASTM D570		0.45 0.55	%
Coefficient of Friction	ICI		0.34	
Coefficient of Linear Thermal Expansion Average below T _g Average above T _g	ISO 11359		3.05 (5.5) 7.77 (14.0)	X 10 ⁻⁵ °F ⁻¹ (°C ⁻¹)
Heat Deflection Temperature, As-molded @ 261 PSI (1.8 MPa)	ISO 75-f		306 (152)	°F (°C)

REVISION HISTORY

REV. NONE – Initial Release - 01/19/2019 Raju K

REV. A - Updated mechanical and physical test data. Also updated data sheet format on new template. Deleted Applications and Compliance table - 09/22/2020 Raju K

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