



TYPICAL PROPERTIES

Reference Document No. GTS-01265

Material Name: ARLON® 1163	Material Description: PEEK, Glass Filled, MIL-P-46183, Type II, Class 3 <small>(With exceptions, Contact Greene, Tweed Engineering)</small>	Manufacturing Method: Injection Molded
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Physical & Mechanical Properties

DESCRIPTION	ASTM METHOD	UNITS	TYPICAL
Color	-	-	Tan
Specific Gravity	D792	-	1.53
Shore D Hardness	D2240	-	90
Rockwell M Hardness	D785	-	107
Tensile Yield Strength	D638	psi	-
Tensile Break Strength	D638	psi	27,000
Tensile 0.5% Secant Modulus	D638	psi	1,720,000
Elongation	D638	%	2.4
Flexural Strength	D790	psi	38,000
Flexural 0.5% Secant Modulus	D790	psi	1,500,000
Shear Strength, Axial	D732	psi	15,300
Shear Strength, Transverse	D732	psi	11,700
Compressive Strength @ Break	D695	psi	35,000
Deformation Under Load	D621	%	0.08
Heat Deflection Temperature @ 264 psi	D648	°F	> 600
Coefficient of Dynamic Friction, PV=12,600 psi-ft./min.	G77	-	0.24
Wear Factor, Modified ASTM G77	G77	10 ⁻¹⁰ in.3-min./ (lb.-ft.-hr.)	175
Coefficient of Thermal Expansion < 300°F	D696	10 ⁻⁶ in./in°F	14
Coefficient of Thermal Expansion > 300°F	D696	10 ⁻⁶ in./in°F	25

Note

Specification: MIL-P-46183, Type II, Class 3, with exceptions, contact Greene, Tweed Engineering.

Properties of Arlon 1163 are anisotropic. The published properties, unless otherwise noted, are measured in the axial flow direction of molded test specimens. Strength and stiffness, therefore, are at a maximum while elongation and thermal coefficient of expansion are at a minimum.

Contact Us

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