

Greene Tweed Arlon® 1555 PEEK, Carbon, Graphite Filled

Category : Polymer , Thermoplastic , Polyketone , Polyetheretherketone (PEEK) , Polyetheretherketone, PEEK, Carbon Fiber Filled

Material Notes:

Arlon® is a tough, high-temperature, semi-crystalline, thermoplastic presenting a unique combination of mechanical, thermal, chemical and electrical properties. Greene, Tweed uses several proprietary manufacturing and machining processes to ensure that Arlons properties consistently outperform the competition. Greene, Tweed offers several different Arlon materials, and all provide high tensile strength and elongation properties, excellent shear strength and creep resistance, outstanding fatigue resistance, broad chemical and radiation resistance, and no susceptibility to hydrolysis (steam/hot water). Our engineers work one on one with customers to find the right solution for each specific application. Information provided by Greene Tweed.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Greene-Tweed-Arlon-1555-PEEK-Carbon-Graphite-Filled.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.46 g/cc	1.46 g/cc	ASTM D792
Deformation	0.10 %	0.10 %	ASTM D621

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	98	98	ASTM D785
Hardness, Shore D	87	87	ASTM D2240
Tensile Strength at Break	146 MPa	21200 psi	ASTM D368
Elongation at Break	2.2 %	2.2 %	ASTM D638
Flexural Strength	188.0 MPa	27260 psi	
	228 MPa	33000 psi	ASTM D790
	126.8 MPa	18390 psi	
	@Temperature 149 Â°C	@Temperature 300 Â°F	
Flexural Modulus	9.65 GPa	1400 ksi	Flexural 0.5% Secant Modulus; ASTM D790
	6.55 GPa	950 ksi	
	@Temperature 149 Â°C	@Temperature 300 Â°F	
Compressive Yield Strength	>= 4.14 MPa	>= 600 psi	
Compressive Strength	170 MPa	24600 psi	ASTM D695
Shear Strength	68.9 MPa	10000 psi	Transverse; ASTM D732
	89.6 MPa	13000 psi	Axial; ASTM D732

Mechanical Properties	Metric Pa	English	Comments
	@Temperature 260 Â°C	@Temperature 500 Â°F	
	50.3 MPa	7300 psi	
	@Temperature 149 Â°C	@Temperature 300 Â°F	
	68.3 MPa	9900 psi	
	@Temperature 65.6 Â°C	@Temperature 150 Â°F	
Secant Modulus	11.38 GPa	1651 ksi	Tensile 0.5% Secant Modulus; ASTM D638
Coefficient of Friction, Dynamic	0.17	0.17	PV=12600 psi-ft./min.; ASTM G77
K (wear) Factor	131 x 10 ⁻⁸ mmÂ³/N-M	65.0 x 10 ⁻¹⁰ inÂ³-min/ft-lb-hr	ASTM G77

Thermal Properties	Metric	English	Comments
CTE, linear	14.4 Âµm/m-Â°C	8.00 Âµin/in-Â°F	ASTM E228
	@Temperature <=149 Â°C	@Temperature <=300 Â°F	
	30.6 Âµm/m-Â°C	17.0 Âµin/in-Â°F	ASTM E228
	@Temperature >=149 Â°C	@Temperature >=300 Â°F	

Descriptive Properties	Value	Comments
Color	Black	

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