



Edgetek™ ET9700-5017 RS black

Polyphthalamide + PA 66

Key Characteristics

Product Description

The Edgetek® Engineering Thermoplastic Compounds portfolio covers a broad range of standard and custom-formulated high performance materials. This portfolio includes high-temperature materials for elevated service temperature environments, high-modulus / structural materials for load-bearing and high-strength applications and flame-retardant products. These compounds are based on select engineering thermoplastic resins that are compounded with reinforcing additives such as carbon fiber, glass fiber and glass beads.

General

Material Status	• Commercial: Active
Regional Availability	• Asia Pacific • Europe
Filler / Reinforcement	• Glass Fiber, 60% Filler by Weight
Features	• Heat Stabilized
Uses	• Automotive Applications • General Purpose • Electrical/Electronic Applications • Industrial Applications
Forms	• Pellets
Processing Method	• Injection Molding

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	1.70 g/cm ³	1.70 g/cm ³	ISO 1183
Molding Shrinkage - Flow	2.0E-3 to 4.0E-3 in/in	0.20 to 0.40 %	ASTM D955
Molding Shrinkage - Across Flow	3.0E-3 to 5.0E-3 in/in	0.30 to 0.50 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus (73°F (23°C))	> 2.90E+6 psi	> 20000 MPa	ISO 527-2
Tensile Stress (Break, 73°F (23°C))	31900 psi	220 MPa	ISO 527-2
Tensile Strain (Break, 73°F (23°C))	1.9 %	1.9 %	ISO 527-2
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F (-30°C)	4.3 ft·lb/in ²	9.0 kJ/m ²	
73°F (23°C)	5.2 ft·lb/in ²	11 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179
-22°F (-30°C)	33 ft·lb/in ²	70 kJ/m ²	
73°F (23°C)	38 ft·lb/in ²	80 kJ/m ²	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Ball Indentation Hardness ²	33400 psi	230 MPa	ISO 2039-1
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Unannealed	> 482 °F	> 250 °C	
Heat Deflection Temperature			ISO 75-2/C
1160 psi (8.0 MPa), Unannealed	428 °F	220 °C	
Melting Temperature	491 °F	255 °C	DSC
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Volume Resistivity	1.0E+13 ohms·cm	1.0E+13 ohms·cm	IEC 60093
Comparative Tracking Index	600 V	600 V	IEC 60112

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	4.0 hr	4.0 hr
Suggested Max Moisture	< 0.10 %	< 0.10 %

Notes

¹ Typical values are not to be construed as specifications.

² 23°C



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