



Edgetek™ ET3500-5001

Acrylonitrile Styrene Acrylate + PC

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	• Europe
Features	• Low Warpage
RoHS Compliance	• RoHS Compliant
Forms	• Pellets

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density (73°F (23°C))	1.15 g/cm ³	1.15 g/cm ³	ISO 1183
Molding Shrinkage - Flow	1.0E-3 to 2.0E-3 in/in	0.10 to 0.20 %	ASTM D955
Water Absorption (24 hr)	0.15 %	0.15 %	ASTM D570
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus			ISO 527-2/1
73°F (23°C), 0.157 in (4.00 mm), Injection Molded	377000 psi	2600 MPa	
Tensile Stress (Yield)	8700 psi	60.0 MPa	ISO 527-2
Tensile Strain (Yield)	5.0 %	5.0 %	ISO 527-2
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179
73°F (23°C), Injection Molded	22 ft·lb/in ²	47 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179
73°F (23°C), Injection Molded	No Break	No Break	
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/B
66 psi (0.45 MPa), Unannealed	246 °F	119 °C	
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Annealed	216 °F	102 °C	
Vicat Softening Temperature			
--	262 °F	128 °C	ISO 306/A
--	241 °F	116 °C	ISO 306/B
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	> 1.0E+14 ohms	> 1.0E+14 ohms	ASTM D257
Volume Resistivity	> 1.0E+15 ohms·cm	> 1.0E+15 ohms·cm	ASTM D257
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating	HB	HB	UL 94

Copyright © 2015 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	248 °F	120 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Processing (Melt) Temp	536 to 608 °F	280 to 320 °C
Mold Temperature	180 to 230 °F	82.0 to 110 °C

Notes

¹ Typical values are not to be construed as specifications.

CONTACT INFORMATION

Americas

United States - Avon Lake
+1 440 930 1000

United States - McHenry
+1 815 385 8500

Asia

China - Guangzhou
+86 20 8732 7260

China - Shenzhen
+86 755 2969 2888

China - Suzhou
+86 512 6823 24 38

China - Suzhou
+86 512 6265 2600

Hong Kong -
+852 2690 5332

Taiwan - Yonghe City,
+886 9396 99740, +886 2929 1849

Europe

Germany - Gaggenau
+49 7225 6802 0

Spain - Barbastro (Huesca)
+34 974 310 314



Beyond Polymers.

Better Business Solutions. SM

www.polyone.com

PolyOne Americas

33587 Walker Road
Avon Lake, Ohio 44012
United States
+1 440 930 1000
+1 866 POLYONE

PolyOne Asia

No. 88 Guoshoujing Road
Z.J Hi-tech Park, Pudong
Shanghai, 201203, China
+86 21 5080 1188

PolyOne Europe

6 Giällewee
+352 269 050 35

Copyright ©, 2015 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.