



LubriOne™ ATC-10GF/02M

Acetal (POM) Copolymer

Key Characteristics

Product Description

PolyOne's LubriOne™ Lubricated and Wear-Resistant Compounds have been specifically formulated to be self-lubricating, offering low coefficient of friction and improved wear resistance properties. These compounds combine the unique benefits of internal lubricants such as PTFE, silicone, Aramide and molybdenum disulfide with a wide array of reinforcements and base engineering resins. Available in a wide range of physical properties, these materials are specified where certain key performance issues are critical. In addition to the standard range, products can be custom-formulated to meet your specific requirements or colors, offering you both product and design flexibility.

General

Material Status	• Commercial: Active
Regional Availability	• Europe
Features	• Low Friction • Lubricated • Wear Resistant
Uses	• Automotive Applications • Electrical/Electronic Applications • Consumer Applications • Industrial Applications
Forms	• Pellets
Processing Method	• Injection Molding

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density ²	1.45 g/cm ³	1.45 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)	7.0 to 11 g/10 min	7.0 to 11 g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	4.00 to 6.00 cm ³ /10min	4.00 to 6.00 cm ³ /10min	ISO 1133
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus	667000 psi	4600 MPa	ISO 527-2
Tensile Stress (Yield)	10200 psi	70.0 MPa	ISO 527-2
Tensile Strain (Yield)	10 %	10 %	ISO 527-2
Tensile Strain (Break)	15 %	15 %	ISO 527-2
Flexural Modulus	479000 psi	3300 MPa	ISO 178
Flexural Stress	16000 psi	110 MPa	ISO 178
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength	3.1 ft-lb/in ²	6.5 kJ/m ²	ISO 179
Charpy Unnotched Impact Strength	27 ft-lb/in ²	57 kJ/m ²	ISO 179
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Heat Deflection Temperature 66 psi (0.45 MPa), Unannealed	316 °F	158 °C	ISO 75-2/B
Heat Deflection Temperature 264 psi (1.8 MPa), Unannealed	248 °F	120 °C	ISO 75-2/A
Vicat Softening Temperature	320 °F	160 °C	ISO 306
Melting Temperature (DSC)	329 to 338 °F	165 to 170 °C	ISO 3146
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Comparative Tracking Index	600 V	600 V	IEC 60112
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.13 in (3.2 mm))	HB	HB	UL 94
Flammability Index	< 4 in/min	< 100 mm/min	FMVSS

Copyright © 2019 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	176 to 212 °F	80 to 100 °C
Drying Time	4.0 hr	4.0 hr
Processing (Melt) Temp	374 to 410 °F	190 to 210 °C
Mold Temperature	167 to 212 °F	75 to 100 °C

Notes

¹ Typical values are not to be construed as specifications.

² +0.02

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 ©, 2019 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.