



# LubriOne™ ATC-000/20T NATURAL UV

## 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 | • Africa & Middle East • Europe                                 |
| Features              | • Low Friction • UV Stabilized<br>• Lubricated • Wear Resistant |
| Appearance            | • Natural Color                                                 |
| Forms                 | • Pellets                                                       |
| Processing Method     | • Injection Molding                                             |

### Technical Properties<sup>1</sup>

| Physical                                                     | Typical Value (English)          | Typical Value (SI)               | Test Method |
|--------------------------------------------------------------|----------------------------------|----------------------------------|-------------|
| Density <sup>2</sup>                                         | 1.50 g/cm <sup>3</sup>           | 1.50 g/cm <sup>3</sup>           | ISO 1183    |
| Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)                  | 8.0 to 12 cm <sup>3</sup> /10min | 8.0 to 12 cm <sup>3</sup> /10min | ISO 1133    |
| Molding Shrinkage                                            | 1.5 to 2.0 %                     | 1.5 to 2.0 %                     | ISO 294-4   |
| Mechanical                                                   | Typical Value (English)          | Typical Value (SI)               | Test Method |
| Tensile Modulus                                              | 334000 psi                       | 2300 MPa                         | ISO 527-2   |
| Tensile Stress                                               | 6530 psi                         | 45.0 MPa                         | ISO 527-2   |
| Tensile Strain (Break)                                       | 17 %                             | 17 %                             | ISO 527-2   |
| Flexural Modulus                                             | 261000 psi                       | 1800 MPa                         | ISO 178     |
| Flexural Stress                                              | 10900 psi                        | 75.0 MPa                         | ISO 178     |
| Impact                                                       | Typical Value (English)          | Typical Value (SI)               | Test Method |
| Charpy Notched Impact Strength                               | 2.9 ft·lb/in <sup>2</sup>        | 6.0 kJ/m <sup>2</sup>            | ISO 179     |
| Charpy Unnotched Impact Strength                             | 19 ft·lb/in <sup>2</sup>         | 40 kJ/m <sup>2</sup>             | ISO 179     |
| Thermal                                                      | Typical Value (English)          | Typical Value (SI)               | Test Method |
| Heat Deflection Temperature<br>66 psi (0.45 MPa), Unannealed | 284 °F                           | 140 °C                           | ISO 75-2/B  |
| Heat Deflection Temperature<br>264 psi (1.8 MPa), Unannealed | 176 °F                           | 80.0 °C                          | ISO 75-2/A  |
| Vicat Softening Temperature                                  | 302 °F                           | 150 °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                                                 | HB                               | HB                               | UL 94       |

**Processing Information**

| Injection              | Typical Value (English) | Typical Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 176 to 212 °F           | 80 to 100 °C       |
| Drying Time            | 3.0 to 4.0 hr           | 3.0 to 4.0 hr      |
| Processing (Melt) Temp | 356 to 410 °F           | 180 to 210 °C      |
| Mold Temperature       | 167 to 212 °F           | 75 to 100 °C       |

**Notes**

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> +/-0.02



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