



## Edgetek™ ATC-15GB / 000 NATURAL UV

Acetal (POM) Copolymer

### Key Characteristics

#### Product Description

The Engineered Materials group of PolyOne offers a POM range of unfilled, filled and impact grades compounds, available under the brand name of Edgetek, using POM homopolymer or copolymer as base resin. 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 colours, offering you both product and design flexibility.

#### General

|                        |                                                                                                                     |
|------------------------|---------------------------------------------------------------------------------------------------------------------|
| Material Status        | • Commercial: Active                                                                                                |
| Regional Availability  | • Asia Pacific • Europe                                                                                             |
| Filler / Reinforcement | • Glass Bead, 15% Filler by Weight                                                                                  |
| Features               | • UV Stabilized                                                                                                     |
| Uses                   | • Automotive Applications • Electrical/Electronic Applications<br>• Consumer Applications • Industrial Applications |
| Appearance             | • Natural Color                                                                                                     |
| Processing Method      | • Injection Molding                                                                                                 |

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

| Physical                                                  | Typical Value (English)             | Typical Value (SI)                  | Test Method |
|-----------------------------------------------------------|-------------------------------------|-------------------------------------|-------------|
| Density <sup>2</sup>                                      | 1.48 g/cm <sup>3</sup>              | 1.48 g/cm <sup>3</sup>              | ISO 1183    |
| Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)               | 6.00 to 9.00 cm <sup>3</sup> /10min | 6.00 to 9.00 cm <sup>3</sup> /10min | ISO 1133    |
| Molding Shrinkage - Flow (0.0787 in (2.00 mm))            | 0.015 to 0.031 in/in                | 1.5 to 3.1 %                        | ISO 294-4   |
| Molding Shrinkage - Across Flow (0.0787 in (2.00 mm))     | 0.016 to 0.022 in/in                | 1.6 to 2.2 %                        | ISO 294-4   |
| Mechanical                                                | Typical Value (English)             | Typical Value (SI)                  | Test Method |
| Tensile Modulus                                           | 377000 psi                          | 2600 MPa                            | ISO 527-2   |
| Tensile Stress (Yield)                                    | 6090 psi                            | 42.0 MPa                            | ISO 527-2   |
| Tensile Strain (Break)                                    | 20 %                                | 20 %                                | ISO 527-2   |
| Flexural Modulus                                          | 363000 psi                          | 2500 MPa                            | ISO 178     |
| Flexural Strength                                         | 10900 psi                           | 75.0 MPa                            | ISO 178     |
| Impact                                                    | Typical Value (English)             | Typical Value (SI)                  | Test Method |
| Charpy Notched Impact Strength (73°F (23°C))              | 1.4 ft·lb/in <sup>2</sup>           | 3.0 kJ/m <sup>2</sup>               | ISO 179     |
| Charpy Unnotched Impact Strength 73°F (23°C)              | 26 ft·lb/in <sup>2</sup>            | 55 kJ/m <sup>2</sup>                | ISO 179     |
| Thermal                                                   | Typical Value (English)             | Typical Value (SI)                  | Test Method |
| Heat Deflection Temperature 66 psi (0.45 MPa), Unannealed | 293 °F                              | 145 °C                              | ISO 75-2/B  |
| Heat Deflection Temperature 264 psi (1.8 MPa), Unannealed | 194 °F                              | 90.0 °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 | HB                      | HB                 | UL 94       |
| Flammability | < 4 in/min              | < 100 mm/min       | FMVSS       |

### Processing Information

| Injection              | Typical Value (English) | Typical Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 176 to 212 °F           | 80 to 100 °C       |
| Drying Time            | 2.0 to 4.0 hr           | 2.0 to 4.0 hr      |
| Processing (Melt) Temp | 410 to 428 °F           | 210 to 220 °C      |
| Mold Temperature       | 140 to 212 °F           | 60 to 100 °C       |

### Notes

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

<sup>2</sup> +-0.02



*Beyond Polymers.*

*Better Business Solutions. <sup>SM</sup>*