



# LubriOne™ LB4200-5010 Black

## Acetal (POM) Copolymer

### Key Characteristics

#### Product Description

LubriOne™ Lubricated and Wear-Resistant Compounds have been specifically formulated to be self-lubricating materials, offering low coefficient of friction and improved wear resistance properties. LubriOne compounds have been demonstrated to reduce friction, noise, vibration, heat buildup and improve product durability.

#### General

|                       |   |
|-----------------------|---|
| Material Status       | • Commercial: Active  |
| Regional Availability | • Europe  |
| Features              | • Copolymer • Lubricated  |
| Uses                  | • Automotive Applications • Electrical/Electronic Applications<br>• Consumer Applications • Industrial Applications |
| Appearance            | • Black   |
| Forms                 | • Pellets   |
| Processing Method     | • Injection Molding   |

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

| Physical   | Typical Value (English)             | Typical Value (SI)                  | Test Method |
|--|-------------------------------------|-------------------------------------|-------------|
| Density / Specific Gravity                                 | 1.34 to 1.38                        | 1.34 to 1.38                        | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)                  | 8.0 to 12 g/10 min                  | 8.0 to 12 g/10 min                  | ISO 1133    |
| Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)                | 6.00 to 8.00 cm <sup>3</sup> /10min | 6.00 to 8.00 cm <sup>3</sup> /10min | ISO 1133    |
| Mechanical   | Typical Value (English)             | Typical Value (SI)                  | Test Method |
| Tensile Modulus  | 328000 psi                          | 2260 MPa                            | ISO 527-2   |
| Tensile Strength (Yield)                                   | 7250 psi                            | 50.0 MPa                            | ISO 527-2   |
| Tensile Strain (Break)                                     | 35 %                                | 35 %                                | ISO 527-2   |
| Flexural Modulus   | 276000 psi                          | 1900 MPa                            | ISO 178     |
| Flexural Strength  | 9430 psi                            | 65.0 MPa                            | ISO 178     |
| Impact   | Typical Value (English)             | Typical Value (SI)                  | Test Method |
| Charpy Notched Impact Strength                             | 3.1 ft·lb/in <sup>2</sup>           | 6.5 kJ/m <sup>2</sup>               | ISO 179     |
| Charpy Unnotched Impact Strength                           | No Break                            | No Break                            | ISO 179     |
| Thermal  | Typical Value (English)             | Typical Value (SI)                  | Test Method |
| Heat Deflection Temperature<br>66 psi (0.45 MPa), Annealed | 293 °F                              | 145 °C                              | ISO 75-2/B  |
| Heat Deflection Temperature<br>264 psi (1.8 MPa), Annealed | 167 °F                              | 75.0 °C                             | ISO 75-2/A  |
| Vicat Softening Temperature                                | 302 °F                              | 150 °C                              | ISO 306     |
| Melting Temperature  | 329 to 338 °F                       | 165 to 170 °C                       |             |
| Electrical   | Typical Value (English)             | Typical Value (SI)                  | Test Method |
| Comparative Tracking Index                                 | 600 V                               | 600 V                               | IEC 10006   |
| Flammability   | Typical Value (English)             | Typical Value (SI)                  | Test Method |
| Flame Rating   | HB                                  | HB                                  | UL 94       |
| FMVSS Burning Speed  | mm/min                              | mm/min                              | DIN 75200   |

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## 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

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

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