

## PolyOne LubriOne™ 5209 FPL 20 Natural Acetal (POM) Copolymer

Category : Polymer , Thermoplastic , Acetal (POM) , Acetal Copolymer, Unreinforced

### Material Notes:

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. Information provided by PolyOne

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PolyOne-LubriOne-5209-FPL-20-Natural-Acetal-POM-Copolymer.php](http://www.lookpolymers.com/polymer_PolyOne-LubriOne-5209-FPL-20-Natural-Acetal-POM-Copolymer.php)

| Physical Properties               | Metric              | English             | Comments  |
|-----------------------------------|---------------------|---------------------|-----------|
| Specific Gravity                  | 1.51 g/cc           | 1.51 g/cc           | ASTM D792 |
| Linear Mold Shrinkage, Flow       | 0.020 - 0.030 cm/cm | 0.020 - 0.030 in/in | ASTM D955 |
| Linear Mold Shrinkage, Transverse | 0.010 - 0.030 cm/cm | 0.010 - 0.030 in/in | ASTM D955 |

| Mechanical Properties            | Metric                                                   | English                                                       | Comments                        |
|----------------------------------|----------------------------------------------------------|---------------------------------------------------------------|---------------------------------|
| Tensile Strength at Break        | 40.7 MPa                                                 | 5900 psi                                                      | 5.1 mm/min; ASTM D638           |
| Tensile Strength, Yield          | 42.1 MPa                                                 | 6110 psi                                                      | Type I, 5.1 mm/min; ASTM D638   |
| Elongation at Break              | 26 %                                                     | 26 %                                                          | Type I, 5.1 mm/min; ASTM D638   |
| Tensile Modulus                  | 2.42 GPa                                                 | 351 ksi                                                       | Type I, 5.1 mm/min; ASTM D638   |
| Flexural Strength                | 68.3 MPa                                                 | 9910 psi                                                      | 1.3 mm/min; ASTM D790           |
| Flexural Modulus                 | 1.79 GPa                                                 | 260 ksi                                                       | 1.3 mm/min; ASTM D790           |
| Izod Impact, Notched             | 0.370 J/cm<br>@Thickness 3.18 mm,<br>Temperature 23.0 °C | 0.693 ft-lb/in<br>@Thickness 0.125 in,<br>Temperature 73.4 °F | Injection Molded; ASTM D256A    |
| Coefficient of Friction, Dynamic | 0.12                                                     | 0.12                                                          | vs. Steel - Dynamic; ASTM D1894 |
| Coefficient of Friction, Static  | 0.13                                                     | 0.13                                                          | vs. Steel - Static; ASTM D1894  |

| Thermal Properties                          | Metric                        | English                       | Comments              |
|---------------------------------------------|-------------------------------|-------------------------------|-----------------------|
| Deflection Temperature at 0.46 MPa (66 psi) | 153 °C<br>@Thickness 6.35 mm  | 307 °F<br>@Thickness 0.250 in | Unannealed; ASTM D648 |
| Deflection Temperature at 1.8 MPa (264 psi) | 82.8 °C<br>@Thickness 6.35 mm | 181 °F<br>@Thickness 0.250 in | Unannealed; ASTM D648 |

| Descriptive Properties | Value                  | Comments |
|------------------------|------------------------|----------|
| Features               | Copolymer              |          |
|                        | Good Wear Resistance   |          |
|                        | Low Friction           |          |
|                        | Lubricated             |          |
| Forms                  | Pellets                |          |
| Generic Material       | Acetal (POM) Copolymer |          |
| Generic Name           | Acetal (POM) Copolymer |          |
| Regional Availability  | Africa & Middle East   |          |
|                        | Asia Pacific           |          |
|                        | Europe                 |          |
|                        | North America          |          |
|                        | South America          |          |
| RoHS Compliance        | RoHS Compliant         |          |
| Uses                   | Appliance Components   |          |
|                        | Conveyor Parts         |          |
|                        | Printer Parts          |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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