

## Global EPP PET SL PET + Solid Lubricant

Category : Polymer , Thermoplastic , Polyester, TP , Polyethylene Terephthalate (PET) , Polyethylene Terephthalate (PET), Unreinforced

### Material Notes:

PET is an unreinforced, semi-crystalline thermoplastic polyester, demonstrating dimensional stability similar to acetal, combined with the comparable wear resistance of nylon. Heavily loaded mechanical precision components subjected to sustained abrasive environments are particularly suited to this material. Key characteristics: Excellent dimensional stability High mechanical strength, hardness and rigidity Excellent wear resistance Good creep resistance Low moisture absorption Low thermal expansion Good resistance to radiant energy Good electrical insulating properties Stain resistant Suitable for food contact This internally lubricated grade incorporates a uniformly dispersed solid lubricant; demonstrating improved frictional properties, outstanding wear resistance and excellent pressure-velocity characteristics over the basic grade.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Global-EPP-PET-SL-PET-Solid-Lubricant.php](http://www.lookpolymers.com/polymer_Global-EPP-PET-SL-PET-Solid-Lubricant.php)

| Physical Properties                | Metric  | English   | Comments                          |
|------------------------------------|---|---|-----------------------------------|
| Density                            | 1.44 g/cc   | 0.0520 lb/in <sup>3</sup>                             | Test Method A; ISO 1183:1987      |
| Water Absorption                   | 0.060 %<br>@Temperature 23.0<br>°C,<br>Time 86400 sec | 0.060 %<br>@Temperature 73.4<br>°F,<br>Time 24.0 hour | Immersion; ISO 62:1999 (modified) |
| Moisture Absorption at Equilibrium | 0.23 %  | 0.23 %  | 50% RH; ISO 62:1999               |
| Water Absorption at Saturation     | 0.40 %  | 0.40 %  | ISO 62:1999                       |

| Mechanical Properties      | Metric                  | English                    | Comments                                    |
|----------------------------|-------------------------|----------------------------|---|
| Tensile Strength at Break  | 80.0 MPa                | 11600 psi                  | Sample Type 1B, 50mm/min; ISO 527-1/2:1993  |
| Elongation at Break        | >= 10 %                 | >= 10 %                    | Sample Type 1B, 50 mm/min; ISO 527-1/2:1993 |
| Modulus of Elasticity      | 3.50 GPa                | 508 ksi                    | Sample Type 1B, 50 mm/min; ISO 527-1/2:1993 |
| Flexural Strength          | 95.0 MPa                | 13800 psi                  | 1.5 mm/min; ISO 178:2001                    |
| Flexural Modulus           | 2.40 GPa                | 348 ksi                    | 1.5 mm/min; ISO 178:2001                    |
| Compressive Strength       | 100 MPa                 | 14500 psi                  | Sample Type B, 5 mm/min; ISO 604:2002       |
| Compressive Modulus        | 2.70 GPa                | 392 ksi                    | Sample Type A, 1 mm/min; ISO 604:2002       |
| Izod Impact, Notched (ISO) | 2.50 kJ/m <sup>2</sup>  | 1.19 ft-lb/in <sup>2</sup> | Sample Type A; ISO 180:2000                 |
| Charpy Impact, Notched     | 0.250 J/cm <sup>2</sup> | 1.19 ft-lb/in <sup>2</sup> | ISO 179-2:1999                              |

| Mechanical Properties            | Metric             | English           | Comments   |
|----------------------------------|--------------------|-------------------|------------|
| Coefficient of Friction, Dynamic | 0.18               | 0.18              | 31.4 m/min |
|                                  | @Pressure 1.75 MPa | @Pressure 254 psi |            |
| Limiting Pressure Velocity       | 0.217 MPa-m/sec    | 6200 psi-ft/min   |            |

| Thermal Properties                          | Metric   | English   | Comments                |
|---|--|---|-------------------------|
| CTE, linear                                 | 67.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ | 37.2 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$  | ISO 11359-2:1999        |
|   | @Temperature 23.0 - 55.0 $\text{Å}^\circ\text{C}$      | @Temperature 73.4 - 131 $\text{Å}^\circ\text{F}$          |                         |
| Thermal Conductivity                        | 0.290 W/m-K  | 2.01 BTU-in/hr-ft $\text{Å}^2\cdot\text{Å}^\circ\text{F}$ | ISO 8301:1991           |
| Melting Point                               | 255 $\text{Å}^\circ\text{C}$                           | 491 $\text{Å}^\circ\text{F}$                              |                         |
| Maximum Service Temperature, Air            | 105 $\text{Å}^\circ\text{C}$                           | 221 $\text{Å}^\circ\text{F}$                              | Continuous              |
|   | 160 $\text{Å}^\circ\text{C}$                           | 320 $\text{Å}^\circ\text{F}$                              | Intermittent            |
| Deflection Temperature at 1.8 MPa (264 psi) | 75.0 $\text{Å}^\circ\text{C}$                          | 167 $\text{Å}^\circ\text{F}$                              | ISO 75                  |
| Minimum Service Temperature, Air            | -20.0 $\text{Å}^\circ\text{C}$                         | -4.00 $\text{Å}^\circ\text{F}$                            | Continuous              |
| Glass Transition Temp, Tg                   | 70.0 $\text{Å}^\circ\text{C}$                          | 158 $\text{Å}^\circ\text{F}$                              | ISO 11359-2:1999        |
| Flammability, UL94                          | HB   | HB  | IEC 60695-11-10:2003-08 |

| Electrical Properties      | Metric                | English               | Comments            |
|----------------------------|-----------------------|-----------------------|---------------------|
| Volume Resistivity         | 1.00e+15 ohm-cm       | 1.00e+15 ohm-cm       | IEC 60093:1980-01   |
| Surface Resistance         | 1.00e+14 ohm          | 1.00e+14 ohm          | IEC 60093:1980-01   |
| Dielectric Constant        | 3.2                   | 3.2                   | IEC 60250:1969-01   |
|                            | @Frequency 1.00e+6 Hz | @Frequency 1.00e+6 Hz |                     |
|                            | 3.4                   | 3.4                   | IEC 60250:1969-01   |
|                            | @Frequency 100 Hz     | @Frequency 100 Hz     |                     |
| Dielectric Strength        | 22.0 kV/mm            | 559 kV/in             | IEC 60243-1:1998-01 |
| Dissipation Factor         | 0.0010                | 0.0010                | IEC 60250:1969-01   |
|                            | @Frequency 100 Hz     | @Frequency 100 Hz     |                     |
| Comparative Tracking Index | 600 V                 | 600 V                 | IEC 60112:2003-01   |

| Descriptive Properties | Value | Comments |
|------------------------|-------|----------|
|------------------------|-------|----------|

| Color<br>Descriptive Properties | Light Grey<br>Value | Comments |
|---------------------------------|---------------------|----------|
|---------------------------------|---------------------|----------|

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China