

## SABIC Innovative Plastics LNP LUBRICOMP WP004 PBT

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT)

### Material Notes:

LNP\* LUBRICOMP\* WP004 is a compound based on PBT resin containing 20% PTFE/Silicone. Added feature of this grade is: Wear Resistant.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-LUBRICOMP-WP004-PBT.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-LUBRICOMP-WP004-PBT.php)

| Physical Properties               | Metric                                 | English                                | Comments                  |
|-----------------------------------|----------------------------------------|----------------------------------------|---------------------------|
| Density                           | 1.42 g/cc                              | 0.0513 lb/in <sup>3</sup>              | ISO 1183                  |
| Moisture Absorption               | 0.0500 %                               | 0.0500 %                               | 50% RH, 24 hrs; ASTM D570 |
|                                   | 0.0900 %                               | 0.0900 %                               | 23°C / 50% RH; ISO 62     |
| Linear Mold Shrinkage, Flow       | >= 0.020 cm/cm<br>@Time 86400 sec      | >= 0.020 in/in<br>@Time 24.0 hour      | ASTM D955                 |
| Linear Mold Shrinkage, Transverse | 0.010 - 0.030 cm/cm<br>@Time 86400 sec | 0.010 - 0.030 in/in<br>@Time 24.0 hour | ASTM D955                 |

| Mechanical Properties     | Metric   | English  | Comments                          |
|---------------------------|----------|----------|-----------------------------------|
| Tensile Strength at Break | 37.0 MPa | 5370 psi | Type I, 5 mm/min; ASTM D638       |
|                           | 37.0 MPa | 5370 psi | 5 mm/min; ISO 527                 |
| Tensile Strength, Yield   | 37.0 MPa | 5370 psi | Type I, 5 mm/min; ASTM D638       |
|                           | 37.0 MPa | 5370 psi | 5 mm/min; ISO 527                 |
| Elongation at Break       | 11.2 %   | 11.2 %   | Type I, 5 mm/min; ASTM D638       |
|                           | 11.9 %   | 11.9 %   | 5 mm/min; ISO 527                 |
| Elongation at Yield       | 10.7 %   | 10.7 %   | Type I, 5 mm/min; ASTM D638       |
|                           | 11.3 %   | 11.3 %   | 5 mm/min; ISO 527                 |
| Tensile Modulus           | 2.24 GPa | 325 ksi  | 1 mm/min; ISO 527                 |
|                           | 2.28 GPa | 331 ksi  | 50 mm/min; ASTM D638              |
| Flexural Strength         | 64.0 MPa | 9280 psi | ISO 178                           |
| Flexural Modulus          | 2.12 GPa | 307 ksi  | 2 mm/min; ISO 178                 |
|                           | 2.19 GPa | 318 ksi  | 1.3 mm/min, 50 mm span; ASTM D790 |

| Mechanical Properties            | Metric                                       | English                                                    | Comments                    |
|----------------------------------|----------------------------------------------|------------------------------------------------------------|-----------------------------|
| Izod Impact, Notched             | 0.300 J/cm                                   | 0.942 ft-lb/in                                             | ASTM D256                   |
| Izod Impact, Unnotched           | 2.70 J/cm                                    | 5.06 ft-lb/in                                              | ASTM D4812                  |
| Izod Impact, Notched (ISO)       | 3.00 kJ/m <sup>2</sup>                       | 1.43 ft-lb/in <sup>2</sup>                                 | 80*10*4; ISO 180/1A         |
| Izod Impact, Unnotched (ISO)     | 19.0 kJ/m <sup>2</sup>                       | 9.04 ft-lb/in <sup>2</sup>                                 | 80*10*4; ISO 180/1U         |
| Dart Drop, Total Energy          | 2.00 J<br>@Temperature 23.0<br>Â°C           | 1.48 ft-lb<br>@Temperature 73.4 Â°F                        | ASTM D3763                  |
| Coefficient of Friction, Dynamic | 0.24                                         | 0.24                                                       | ASTM D3702 Modified         |
| Coefficient of Friction, Static  | 0.13                                         | 0.13                                                       | ASTM D3702 Modified         |
| K (wear) Factor                  | 32.2 x 10 <sup>-8</sup> mm <sup>3</sup> /N-M | 16.0 x 10 <sup>-10</sup> in <sup>3</sup> -<br>min/ft-lb-hr | Washer; ASTM D3702 Modified |

| Thermal Properties                             | Metric                                             | English                                              | Comments                         |
|------------------------------------------------|----------------------------------------------------|------------------------------------------------------|----------------------------------|
| CTE, linear, Parallel to Flow                  | 68.0 Âµm/m-Â°C<br>@Temperature -30.0 -<br>30.0 Â°C | 37.8 Âµin/in-Â°F<br>@Temperature -22.0 -<br>86.0 Â°F | ASTM D696                        |
| CTE, linear, Transverse to Flow                | 110 Âµm/m-Â°C<br>@Temperature -30.0 -<br>30.0 Â°C  | 61.1 Âµin/in-Â°F<br>@Temperature -22.0 -<br>86.0 Â°F | ASTM D696                        |
| Deflection Temperature at 0.46 MPa<br>(66 psi) | 158 Â°C                                            | 316 Â°F                                              | Flatw 80*10*4 sp=64mm; ISO 75/Bf |
|                                                | 182 Â°C<br>@Thickness 3.20 mm                      | 360 Â°F<br>@Thickness 0.126 in                       | unannealed; ASTM D648            |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 54.0 Â°C                                           | 129 Â°F                                              | Flatw 80*10*4 sp=64mm; ISO 75/Af |
|                                                | 55.0 Â°C<br>@Thickness 3.20 mm                     | 131 Â°F<br>@Thickness 0.126 in                       | unannealed; ASTM D648            |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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