

## SABIC Innovative Plastics LNP Lubricomp OFB32I PPS

Category : Polymer , Thermoplastic , Polyphenylene Sulfide (PPS)

### Material Notes:

LNP LUBRICOMP\* OFB32I is a compound based on Polyphenylene Sulfide resin containing Carbon Fiber, PTFE. Added features of this material include: Electrically Conductive. This data was supplied by SABIC-IP for the Americas region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-Lubricomp-OFB32I-PPS.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-Lubricomp-OFB32I-PPS.php)

| Physical Properties                | Metric                     | English                    | Comments                           |
|------------------------------------|----------------------------|----------------------------|------------------------------------|
| Density                            | 1.55 g/cc                  | 0.0560 lb/in <sup>3</sup>  | ASTM D 792                         |
|                                    | 1.55 g/cc                  | 0.0560 lb/in <sup>3</sup>  | ISO 1183                           |
| Moisture Absorption at Equilibrium | 0.020 %                    | 0.020 %                    | 23 <sup>°</sup> C / 50% RH; ISO 62 |
|                                    | 0.020 %<br>@Time 86400 sec | 0.020 %<br>@Time 24.0 hour | 50% RH; ASTM D 570                 |
| Linear Mold Shrinkage, Flow        | 0.00060 cm/cm              | 0.00060 in/in              | ISO 294                            |
|                                    | @Time 86400 sec            | @Time 24.0 hour            |                                    |
|                                    | 0.0010 cm/cm               | 0.0010 in/in               | ASTM D 955                         |
|                                    | @Time 86400 sec            | @Time 24.0 hour            |                                    |
| Linear Mold Shrinkage, Transverse  | 0.0040 cm/cm               | 0.0040 in/in               | ASTM D 955                         |
|                                    | @Time 86400 sec            | @Time 24.0 hour            |                                    |
|                                    | 0.0044 cm/cm               | 0.0044 in/in               | ISO 294                            |
|                                    | @Time 86400 sec            | @Time 24.0 hour            |                                    |

| Mechanical Properties     | Metric    | English   | Comments              |
|---------------------------|-----------|-----------|-----------------------|
| Tensile Strength at Break | 121 MPa   | 17500 psi | ASTM D 638            |
|                           | 165 MPa   | 23900 psi | ISO 527               |
| Elongation at Break       | 0.80 %    | 0.80 %    | ASTM D 638            |
|                           | 0.80 %    | 0.80 %    | ISO 527               |
| Tensile Modulus           | 22.95 GPa | 3329 ksi  | 50 mm/min; ASTM D 638 |
|                           | 26.2 GPa  | 3800 ksi  | 1 mm/min; ISO 527     |
| Flexural Strength         | 253 MPa   | 36700 psi | ASTM D 790            |
|                           | 259 MPa   | 37600 psi | ISO 178               |

| Mechanical Properties            | Metric                                  | English                                        | Comments                                          |
|----------------------------------|-----------------------------------------|------------------------------------------------|---------------------------------------------------|
| Flexural Modulus                 | 24.94 GPa                               | 3569 ksi                                       | ASTM D 790                                        |
|                                  | 25.94 GPa                               | 3762 ksi                                       | ISO 178                                           |
| Izod Impact, Notched             | 0.480 J/cm<br>@Temperature 23.0<br>Â°C  | 0.899 ft-lb/in<br>@Temperature 73.4 Â°F        | ASTM D 256                                        |
| Izod Impact, Unnotched           | 3.95 J/cm<br>@Temperature 23.0<br>Â°C   | 7.40 ft-lb/in<br>@Temperature 73.4 Â°F         | ASTM D 4812                                       |
| Izod Impact, Notched (ISO)       | 5.00 kJ/mÂ²<br>@Temperature 23.0<br>Â°C | 2.38 ft-lb/inÂ²<br>@Temperature 73.4 Â°F       | 80*10*4; ISO 180/1A                               |
| Izod Impact, Unnotched (ISO)     | 24.0 kJ/mÂ²<br>@Temperature 23.0<br>Â°C | 11.4 ft-lb/inÂ²<br>@Temperature 73.4 Â°F       | 80*10*4; ISO 180/1U                               |
| Impact Test                      | 2.00 J                                  | 1.48 ft-lb                                     | Multiaxial Impact; ISO 6603                       |
|                                  | 4.00 J<br>@Temperature 23.0<br>Â°C      | 2.95 ft-lb<br>@Temperature 73.4 Â°F            | Instrumented Impact Energy @ peak;<br>ASTM D 3763 |
| Coefficient of Friction, Dynamic | 0.36                                    | 0.36                                           | ASTM D 3702 Modified                              |
| Coefficient of Friction, Static  | 0.31                                    | 0.31                                           | ASTM D 3702 Modified                              |
| K (wear) Factor                  | 94.7 x 10 <sup>-8</sup> mmÂ³/N-M        | 47.0 x 10 <sup>-10</sup> inÂ³-<br>min/ft-lb-hr | Washer; ASTM D 3702 Modified                      |

| Thermal Properties                             | Metric                        | English                        | Comments                         |
|------------------------------------------------|-------------------------------|--------------------------------|----------------------------------|
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 265 Â°C                       | 509 Â°F                        | Flatw 80*10*4 sp=64mm; ISO 75/Af |
|                                                | 269 Â°C<br>@Thickness 3.20 mm | 516 Â°F<br>@Thickness 0.126 in | unannealed; ASTM D 648           |

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