

## LNP Verton™ UF-700-12 Polyphthalamide, Long Glass Fiber Filled (discontinued \*\*)

Category : Polymer , Thermoplastic , Polyphthalamide (PPA)

### Material Notes:

LNP™ Verton™ UF-700-12 HS EXP is a compound based on Polyphthalamide resin containing Long Glass Fiber. Added features of this material include: Heat Stabilized. Information provided by LNP This data sheet is labeled Discontinued; however many LNP grades are still active under new names instituted after the SABIC purchase.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_LNP-Verton-UF-700-12-Polyphthalamide-Long-Glass-Fiber-Filled-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_LNP-Verton-UF-700-12-Polyphthalamide-Long-Glass-Fiber-Filled-nbspdiscontinued-.php)

| Physical Properties                | Metric                | English                   | Comments                  |
|------------------------------------|-----------------------|---------------------------|---------------------------|
| Density                            | 1.72 g/cc             | 0.0621 lb/in <sup>3</sup> | ASTM D792                 |
|                                    | 1.72 g/cc             | 0.0621 lb/in <sup>3</sup> | ISO 1183                  |
| Moisture Absorption at Equilibrium | 0.20 %                | 0.20 %                    | 50% RH, 24 hrs; ASTM D570 |
| Linear Mold Shrinkage              | 0.0018 cm/cm          | 0.0018 in/in              | 24 hrs; ISO 294           |
|                                    | 0.0010 - 0.0030 cm/cm | 0.0010 - 0.0030 in/in     | 24 hrs; ASTM D955         |
| Linear Mold Shrinkage, Transverse  | 0.0045 cm/cm          | 0.0045 in/in              | 24 hrs; ISO 294           |
|                                    | 0.0040 - 0.0060 cm/cm | 0.0040 - 0.0060 in/in     | 24 hrs; ASTM D955         |

| Mechanical Properties      | Metric    | English   | Comments             |
|----------------------------|-----------|-----------|----------------------|
| Tensile Strength at Break  | 216 MPa   | 31300 psi | ISO 527              |
| Tensile Strength, Ultimate | 238 MPa   | 34600 psi | ASTM D638            |
| Tensile Strength, Yield    | 238 MPa   | 34600 psi | ASTM D638            |
| Elongation at Break        | 1.2 %     | 1.2 %     | ISO 527              |
|                            | 1.4 %     | 1.4 %     | ASTM D638            |
| Elongation at Yield        | 1.4 %     | 1.4 %     | ASTM D638            |
| Tensile Modulus            | 22.24 GPa | 3226 ksi  | 1 mm/min; ISO 527    |
|                            | 22.8 GPa  | 3300 ksi  | 50 mm/min; ASTM D638 |
| Flexural Strength          | 341 MPa   | 49500 psi | ISO 178              |
|                            | 344.2 MPa | 49920 psi | ASTM D790            |
| Flexural Modulus           | 19.0 GPa  | 2760 ksi  | ISO 178              |

| Mechanical Properties        | 19.30 GPa<br>Metric                                                  | 2799 ksi<br>English                                                       | ASTM D790<br>Comments |
|------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------|
| Izod Impact, Notched         | 2.16 J/cm                                                            | 4.04 ft-lb/in                                                             | ASTM D256             |
| Izod Impact, Unnotched       | 8.83 J/cm                                                            | 16.5 ft-lb/in                                                             | ASTM D4812            |
| Izod Impact, Notched (ISO)   | 28.0 kJ/m <sup>2</sup><br>@Thickness 4.00 mm,<br>Temperature 23.0 °C | 13.3 ft-lb/in <sup>2</sup><br>@Thickness 0.157 in,<br>Temperature 73.4 °F | 80*10*4; ISO 180/1A   |
| Izod Impact, Unnotched (ISO) | 46.0 kJ/m <sup>2</sup>                                               | 21.9 ft-lb/in <sup>2</sup>                                                | 80*10*4; ISO 180/1U   |
| Impact Test                  | 14.0 J<br>@Temperature 23.0 °C                                       | 10.3 ft-lb<br>@Temperature 73.4 °F                                        | peak; ASTM D3763      |

| Thermal Properties                             | Metric                                          | English                                          | Comments                         |
|------------------------------------------------|-------------------------------------------------|--------------------------------------------------|----------------------------------|
| CTE, linear                                    | 28.8 µm/m-°C<br>@Temperature -40.0 -<br>40.0 °C | 16.0 µin/in-°F<br>@Temperature -40.0 -<br>104 °F | ASTM E831                        |
|                                                | 29.0 µm/m-°C<br>@Temperature -40.0 -<br>40.0 °C | 16.1 µin/in-°F<br>@Temperature -40.0 -<br>104 °F | ISO 11359-2                      |
| CTE, linear, Transverse to Flow                | 23.0 µm/m-°C<br>@Temperature -40.0 -<br>40.0 °C | 12.8 µin/in-°F<br>@Temperature -40.0 -<br>104 °F | ISO 11359-2                      |
|                                                | 23.4 µm/m-°C<br>@Temperature -40.0 -<br>40.0 °C | 13.0 µin/in-°F<br>@Temperature -40.0 -<br>104 °F | ASTM E831                        |
| Deflection Temperature at 0.46 MPa<br>(66 psi) | 283 °C                                          | 541 °F                                           | Flatw 80*10*4 sp=64mm; ISO 75/Bf |
|                                                | 281 °C<br>@Thickness 3.20 mm                    | 538 °F<br>@Thickness 0.126 in                    | Unannealed; ASTM D648            |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 257 °C                                          | 495 °F                                           | Flatw 80*10*4 sp=64mm; ISO 75/Af |
|                                                | 255 °C<br>@Thickness 3.20 mm                    | 491 °F<br>@Thickness 0.126 in                    | Unannealed; ASTM D648            |

| Descriptive Properties   | Value | Comments |
|--------------------------|-------|----------|
| Multiaxial Impact cm-kgf | 48    |          |

## 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