

# LNPT<sup>TM</sup> LUBRICOMP<sup>TM</sup> COMPOUND OFL36A

OFL-4036

REGION EUROPE

## DESCRIPTION

LNP LUBRICOMP OFL36A compound is based on Polyphenylene Sulfide (PPS) - branched resin containing 30% glass fiber, 15% PTFE. Added features of this grade include: Wear Resistant.

### GENERAL INFORMATION

|                       |                                                 |
|-----------------------|-------------------------------------------------|
| Features              | Wear resistant, High stiffness/Strength         |
| Fillers               | Glass Fiber, PTFE                               |
| Polymer Types         | Polyphenylene Sulfide, Branched (PPS, Branched) |
| Processing Techniques | Injection Molding                               |

### INDUSTRY

Building and Construction  
Consumer  
Electrical and Electronics  
Industrial

### SUB INDUSTRY

Building Component  
Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance  
Mobile Phone - Computer - Tablets  
Electrical

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES                              | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------------------|----------------|-------|--------------|
| <b>MECHANICAL <sup>(1)</sup></b>        |                |       |              |
| Tensile Stress, break, 5 mm/min         | 124            | MPa   | ISO 527      |
| Tensile Strain, break, 5 mm/min         | 1.4            | %     | ISO 527      |
| Tensile Modulus, 1 mm/min               | 11100          | MPa   | ISO 527      |
| Flexural Stress, yield, 2 mm/min        | 216            | MPa   | ISO 178      |
| Flexural Strain, break, 2 mm/min        | 2.4            | %     | ISO 178      |
| Flexural Modulus, 2 mm/min              | 9700           | MPa   | ISO 178      |
| Flexural Strain, break, 2 mm/min, 80°C  | 2.6            | %     | ISO 178      |
| Flexural Strain, break, 2 mm/min, 120°C | 5.2            | %     | ISO 178      |
| Flexural Strain, break, 2 mm/min, 150°C | 5.8            | %     | ISO 178      |
| Flexural Strain, break, 2 mm/min, 200°C | 5.7            | %     | ISO 178      |
| Flexural Stress, yield, 2 mm/min, 80°C  | 184            | MPa   | ISO 178      |
| Flexural Stress, yield, 2 mm/min, 120°C | 114            | MPa   | ISO 178      |
| Flexural Stress, yield, 2 mm/min, 150°C | 80             | MPa   | ISO 178      |
| Flexural Stress, yield, 2 mm/min, 200°C | 58             | MPa   | ISO 178      |
| Flexural Modulus, 2 mm/min, 80°C        | 9300           | MPa   | ISO 178      |
| Flexural Modulus, 2 mm/min, 120°C       | 4700           | MPa   | ISO 178      |
| Flexural Modulus, 2 mm/min, 150°C       | 4000           | MPa   | ISO 178      |
| Flexural Modulus, 2 mm/min, 200°C       | 3100           | MPa   | ISO 178      |
| <b>IMPACT <sup>(1)</sup></b>            |                |       |              |

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CHEMISTRY THAT MATTERS<sup>™</sup>

| PROPERTIES                                           | TYPICAL VALUES                   | UNITS                                          | TEST METHODS                |
|------------------------------------------------------|----------------------------------|------------------------------------------------|-----------------------------|
| Multiaxial Impact                                    | 1                                | J                                              | ISO 6603                    |
| Izod Impact, notched 80°10'3 -40°C                   | 8                                | kJ/m <sup>2</sup>                              | ISO 180/1A                  |
| Izod Impact, unnotched 80°10'4 +23°C                 | 26                               | kJ/m <sup>2</sup>                              | ISO 180/1U                  |
| Izod Impact, unnotched 80°10'4 -40°C                 | 31                               | kJ/m <sup>2</sup>                              | ISO 180/1U                  |
| Izod Impact, notched 80°10'4 +23°C                   | 7                                | kJ/m <sup>2</sup>                              | ISO 180/1A                  |
| <b>THERMAL <sup>(1)</sup></b>                        |                                  |                                                |                             |
| Specific Heat                                        | 1490                             | J/kg-K                                         | ASTM E1269                  |
| CTE, 23°C to 60°C, flow                              | 2.4E-05                          | 1 /°C                                          | ISO 11359-2                 |
| CTE, 23°C to 60°C, xflow                             | 5.E-05                           | 1 /°C                                          | ISO 11359-2                 |
| HDT/Af, 1.8 MPa Flatw 80°10'4 sp=64mm                | 266                              | °C                                             | ISO 75/Af                   |
| Thermal Conductivity                                 | 0.29                             | W/m-K                                          | ASTM D5930                  |
| Relative Temp Index, Elec <sup>(2)</sup>             | 200                              | °C                                             | UL 746B                     |
| Relative Temp Index, Mech w/impact <sup>(2)</sup>    | 130                              | °C                                             | UL 746B                     |
| Relative Temp Index, Mech w/o impact <sup>(2)</sup>  | 130                              | °C                                             | UL 746B                     |
| <b>PHYSICAL <sup>(1)</sup></b>                       |                                  |                                                |                             |
| Wear Factor Washer                                   | 33                               | 10 <sup>-4</sup> in <sup>3</sup> /min/ft-lb-hr | ASTM D3702 Modified: Manual |
| Dynamic COF                                          | 0.44                             | -                                              | ASTM D3702 Modified: Manual |
| Static COF                                           | 0.35                             | -                                              | ASTM D3702 Modified: Manual |
| Density                                              | 1.69                             | g/cm <sup>3</sup>                              | ISO 1183                    |
| Water Absorption, (23°C/24hrs)                       | 0.02                             | %                                              | ISO 62-1                    |
| Moisture Absorption (23°C / 50% RH)                  | 0.04                             | %                                              | ISO 62                      |
| Melt Volume Rate, MVR at 315°C/5.0 kg                | 10 – 15                          | cm <sup>3</sup> /10 min                        | ISO 1133                    |
| <b>ELECTRICAL <sup>(1)</sup></b>                     |                                  |                                                |                             |
| Comparative Tracking Index (UL) {PLC} <sup>(2)</sup> | 4                                | PLC Code                                       | UL 746A                     |
| Hot-Wire Ignition (HWI), PLC 0 <sup>(2)</sup>        | ≥1.5                             | mm                                             | UL 746A                     |
| Hot-Wire Ignition (HWI), PLC 3 <sup>(2)</sup>        | ≥0.75                            | mm                                             | UL 746A                     |
| High Amp Arc Ignition (HAI), PLC 0 <sup>(2)</sup>    | ≥1.5                             | mm                                             | UL 746A                     |
| High Amp Arc Ignition (HAI), PLC 2 <sup>(2)</sup>    | ≥0.75                            | mm                                             | UL 746A                     |
| High Voltage Arc Track Rate {PLC} <sup>(2)</sup>     | 4                                | PLC Code                                       | UL 746A                     |
| Arc Resistance, Tungsten {PLC} <sup>(2)</sup>        | 7                                | PLC Code                                       | ASTM D495                   |
| <b>FLAME CHARACTERISTICS <sup>(2)</sup></b>          |                                  |                                                |                             |
| UL Yellow Card Link                                  | <a href="#">E45329-101283832</a> | -                                              | -                           |
| UL Yellow Card Link 2                                | <a href="#">E45329-101344460</a> | -                                              | -                           |
| UL Recognized, 94V-0 Flame Class Rating              | ≥0.75                            | mm                                             | UL 94                       |
| <b>INJECTION MOLDING <sup>(3)</sup></b>              |                                  |                                                |                             |
| Drying Temperature                                   | 120 – 150                        | °C                                             |                             |
| Drying Time                                          | 4                                | Hrs                                            |                             |
| Melt Temperature                                     | 315 – 320                        | °C                                             |                             |
| Front - Zone 3 Temperature                           | 330 – 345                        | °C                                             |                             |
| Middle - Zone 2 Temperature                          | 320 – 330                        | °C                                             |                             |
| Rear - Zone 1 Temperature                            | 305 – 315                        | °C                                             |                             |
| Mold Temperature                                     | 140 – 165                        | °C                                             |                             |
| Back Pressure                                        | 0.2 – 0.3                        | MPa                                            |                             |
| Screw Speed                                          | 30 – 60                          | rpm                                            |                             |



- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
- (3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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