

# LNPT<sup>TM</sup> LUBRICOMP<sup>TM</sup> COMPOUND UCL16AS

## DESCRIPTION

LNP LUBRICOMP UCL16AS compound is based on Polyphthalamide (PPA) resin containing 5% PTFE and 30% carbon fiber. Added features of this grade include: Heat Stabilized, Wear Resistant, Electrically Conductive.

### GENERAL INFORMATION

|                       |                                                                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Features              | Electrically Conductive, Heat Stabilized, Wear resistant, Carbon fiber filled, High stiffness/Strength, High temperature resistance |
| Fillers               | Carbon Fiber, PTFE                                                                                                                  |
| Polymer Types         | Polyphthalamide (PPA)                                                                                                               |
| Processing Techniques | Injection Molding                                                                                                                   |

### INDUSTRY

### SUB INDUSTRY

|                            |                                                          |
|----------------------------|----------------------------------------------------------|
| Automotive                 | Automotive Under the Hood                                |
| Consumer                   | Home Appliances, Commercial Appliance                    |
| Electrical and Electronics | Electronic Components, Mobile Phone - Computer - Tablets |

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES                              | TYPICAL VALUES | UNITS             | TEST METHODS |
|-----------------------------------------|----------------|-------------------|--------------|
| <b>MECHANICAL <sup>(1)</sup></b>        |                |                   |              |
| Tensile Stress, break, 5 mm/min         | 272            | MPa               | ISO 527      |
| Tensile Strain, break, 5 mm/min         | 1.4            | %                 | ISO 527      |
| Tensile Modulus, 1 mm/min               | 21800          | MPa               | ISO 527      |
| Flexural Stress, yield, 2 mm/min        | 373            | MPa               | ISO 178      |
| Flexural Modulus, 2 mm/min              | 19000          | MPa               | ISO 178      |
| <b>IMPACT <sup>(1)</sup></b>            |                |                   |              |
| Izod Impact, unnotched 80*10*4 +23°C    | 40             | 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>           |                |                   |              |
| CTE, 23°C to 60°C, flow                 | 7.E-06         | 1/°C              | ISO 11359-2  |
| CTE, 23°C to 60°C, xflow                | 4.6E-05        | 1/°C              | ISO 11359-2  |
| <b>PHYSICAL <sup>(1)</sup></b>          |                |                   |              |
| Density                                 | 1.36           | g/cm <sup>3</sup> | ISO 1183     |
| <b>INJECTION MOLDING <sup>(2)</sup></b> |                |                   |              |
| Drying Temperature                      | 120            | °C                |              |
| Drying Time                             | 4              | Hrs               |              |
| Maximum Moisture Content                | 0.15           | %                 |              |
| Melt Temperature                        | 315 – 330      | °C                |              |
| Front - Zone 3 Temperature              | 325 – 340      | °C                |              |
| Middle - Zone 2 Temperature             | 315 – 325      | °C                |              |
| Rear - Zone 1 Temperature               | 310 – 320      | °C                |              |



| PROPERTIES       | TYPICAL VALUES | UNITS | TEST METHODS |
|------------------|----------------|-------|--------------|
| Mold Temperature | 150 – 170      | °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) 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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