

# LNPTM LUBRICOMPTM COMPOUND PFL38S

PFL-4038 HS

REGION AMERICAS

## DESCRIPTION

LNP LUBRICOMP PFL38S compound is based on Nylon 6 resin containing 40% glass fiber, 15% PTFE. Added features of this grade include: Heat Stabilized, Wear Resistant

| GENERAL INFORMATION   |                                                          |
|-----------------------|----------------------------------------------------------|
| Features              | Heat Stabilized, Wear resistant, High stiffness/Strength |
| Fillers               | Glass Fiber, PTFE                                        |
| Polymer Types         | Polyamide 6 (Nylon 6)                                    |
| Processing Techniques | Injection Molding                                        |

| INDUSTRY                   | SUB INDUSTRY                                                             |
|----------------------------|--------------------------------------------------------------------------|
| Building and Construction  | Building Component                                                       |
| Consumer                   | Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance |
| Electrical and Electronics | Mobile Phone - Computer - Tablets                                        |
| Industrial                 | Electrical                                                               |

## TYPICAL PROPERTY VALUES

| PROPERTIES                                         | TYPICAL VALUES | UNITS | TEST METHODS |
|----------------------------------------------------|----------------|-------|--------------|
| <b>MECHANICAL <sup>(1)</sup></b>                   |                |       |              |
| Tensile Stress, brk, Type I, 5 mm/min              | 152            | MPa   | ASTM D638    |
| Tensile Strain, brk, Type I, 5 mm/min              | 2.5            | %     | ASTM D638    |
| Flexural Stress, brk, 1.3 mm/min, 50 mm span       | 220            | MPa   | ASTM D790    |
| Flexural Modulus, 1.3 mm/min, 50 mm span           | 10340          | MPa   | ASTM D790    |
| <b>IMPACT <sup>(1)</sup></b>                       |                |       |              |
| Izod Impact, unnotched, 23°C                       | 904            | J/m   | ASTM D4812   |
| Izod Impact, notched, 23°C                         | 133            | J/m   | ASTM D256    |
| <b>THERMAL <sup>(1)</sup></b>                      |                |       |              |
| HDT, 1.82 MPa, 3.2mm, unannealed                   | 212            | °C    | ASTM D648    |
| <b>PHYSICAL <sup>(1)</sup></b>                     |                |       |              |
| Specific Gravity                                   | 1.59           | -     | ASTM D792    |
| Moisture Absorption, (23°C/50% RH/24 hrs)          | 0.5            | %     | ASTM D570    |
| Mold Shrinkage, 48 hrs @ 23°C, flow <sup>(2)</sup> | 0.3 – 0.4      | %     | SABIC method |
| <b>INJECTION MOLDING <sup>(3)</sup></b>            |                |       |              |
| Drying Temperature                                 | 80             | °C    |              |
| Drying Time                                        | 4              | Hrs   |              |
| Maximum Moisture Content                           | 0.15 – 0.25    | %     |              |
| Melt Temperature                                   | 265 – 275      | °C    |              |
| Front - Zone 3 Temperature                         | 275 – 290      | °C    |              |



| PROPERTIES                  | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| Middle - Zone 2 Temperature | 265 – 275      | °C    |              |
| Rear - Zone 1 Temperature   | 250 – 260      | °C    |              |
| Mold Temperature            | 80 – 95        | °C    |              |
| Back Pressure               | 0.3 – 0.7      | MPa   |              |
| Screw Speed                 | 30 – 60        | rpm   |              |