

LNPT[™] LUBRICOMP[™] COMPOUND RFN18SXS

RFL-4218 HS

DESCRIPTION

LNP LUBRICOMP RFN18SXS compound is based on Nylon 6/6 resin containing 40% glass fiber, Molybdenum diSulfide (MoS₂). Added features of this grade include: Heat Stabilized, Wear Resistant.

| GENERAL INFORMATION | |
|-----------------------|---|
| Features | Heat Stabilized, Wear resistant, High stiffness/Strength, No PFAS intentionally added |
| Fillers | Glass Fiber, Molybdenum |
| Polymer Types | Polyamide 66 (Nylon 66) |
| 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

Revision 20231109

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|--|----------------|--|-----------------------------|
| MECHANICAL ⁽¹⁾ | | | |
| Tensile Stress, break, 5 mm/min | 219 | MPa | ISO 527 |
| Tensile Strain, break, 5 mm/min | 2.8 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 13300 | MPa | ISO 527 |
| Flexural Stress, break, 2 mm/min | 311 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 11100 | MPa | ISO 178 |
| IMPACT ⁽¹⁾ | | | |
| Izod Impact, unnotched 80*10*4 +23°C | 75 | kJ/m ² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 12 | kJ/m ² | ISO 180/1A |
| THERMAL ⁽¹⁾ | | | |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 261 | °C | ISO 75/Bf |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 254 | °C | ISO 75/Af |
| PHYSICAL ⁽¹⁾ | | | |
| Mold Shrinkage on Tensile Bar, flow ⁽²⁾ | 0.15 – 0.35 | % | SABIC method |
| Wear Factor Washer | 45 | 10 ⁻⁴ in ³ /5-min/ft-lb-hr | ASTM D3702 Modified: Manual |
| Dynamic COF | 0.75 | - | ASTM D3702 Modified: Manual |
| Static COF | 0.59 | - | ASTM D3702 Modified: Manual |
| Density | 1.51 | g/cm ³ | ISO 1183 |
| INJECTION MOLDING ⁽³⁾ | | | |
| Drying Temperature | 80 | °C | |
| Drying Time | 4 | Hrs | |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| Maximum Moisture Content | 0.15 – 0.25 | % | |
| Melt Temperature | 280 – 305 | °C | |
| Front - Zone 3 Temperature | 295 – 305 | °C | |
| Middle - Zone 2 Temperature | 280 – 295 | °C | |
| Rear - Zone 1 Temperature | 265 – 275 | °C | |
| Mold Temperature | 95 – 110 | °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) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (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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