

# LNPT<sup>TM</sup> THERMOCOMP<sup>TM</sup> COMPOUND UF008AR

UF-1008 A MR

## DESCRIPTION

LNP THERMOCOMP UF008AR compound is based on Polyphthalamide (PPA) resin, containing 40% glass fiber. Added features of this grade include: Mold Release.

| GENERAL INFORMATION   |   |
|-----------------------|---|
| Features              | Enhanced mold release, High stiffness/Strength, High temperature resistance |
| Fillers               | Glass Fiber   |
| Polymer Types         | Polyphthalamide (PPA)   |
| Processing Techniques | Injection Molding   |

| INDUSTRY                   | SUB INDUSTRY   |
|----------------------------|--|
| Automotive                 | Automotive Under the Hood                                |
| Consumer                   | Commercial Appliance                                     |
| Electrical and Electronics | Electronic Components, Mobile Phone - Computer - Tablets |
| Industrial                 | Electrical   |

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES                                  | TYPICAL VALUES                   | UNITS             | TEST METHODS |
|---|----------------------------------|-------------------|--------------|
| <b>MECHANICAL <sup>(1)</sup></b>            |                                  |                   |              |
| Tensile Stress, break, 5 mm/min             | 234                              | MPa               | ISO 527      |
| Tensile Strain, break, 5 mm/min             | 2.1                              | %                 | ISO 527      |
| Tensile Modulus, 1 mm/min                   | 14500                            | MPa               | ISO 527      |
| Flexural Stress, yield, 2 mm/min            | 315                              | MPa               | ISO 178      |
| Flexural Modulus, 2 mm/min                  | 12000                            | MPa               | ISO 178      |
| <b>IMPACT <sup>(1)</sup></b>                |                                  |                   |              |
| Izod Impact, unnotched 80*10*4 +23°C        | 55                               | kJ/m <sup>2</sup> | ISO 180/1U   |
| Izod Impact, notched 80*10*4 +23°C          | 13                               | kJ/m <sup>2</sup> | ISO 180/1A   |
| <b>THERMAL <sup>(1)</sup></b>               |                                  |                   |              |
| CTE, 23°C to 60°C, flow                     | 2.3E-05                          | 1/°C              | ISO 11359-2  |
| CTE, 23°C to 60°C, xflow                    | 5.3E-05                          | 1/°C              | ISO 11359-2  |
| <b>PHYSICAL <sup>(1)</sup></b>              |                                  |                   |              |
| Mold Shrinkage, flow <sup>(2)</sup>         | 0.14                             | %                 | SABIC method |
| Density                                     | 1.53                             | g/cm <sup>3</sup> | ISO 1183     |
| <b>FLAME CHARACTERISTICS <sup>(3)</sup></b> |                                  |                   |              |
| UL Yellow Card Link                         | <a href="#">E45329-101284057</a> | -                 | -            |
| UL Recognized, 94HB Flame Class Rating      | 0.8                              | mm                | UL 94        |
| <b>INJECTION MOLDING <sup>(4)</sup></b>     |                                  |                   |              |
| Drying Temperature                          | 120 – 150                        | °C                |              |

| PROPERTIES                  | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| 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    |              |
| 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) 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) 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.
- (4) 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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