

## LNPTM THERMOCOMPTM COMPOUND MFB821

MFX-100-10 MG-S

## **DESCRIPTION**

LNP THERMOCOMP MFB82I compound is based on Polypropylene (PP) resin containing 10% glass fiber, 40% glass bead. Added features of this grade include: Improved Impact.

| GENERAL INFORMATION   |   |
|-----------------------|---|
| Features              | Low Warpage, High stiffness/Strength, Impact resistant, No PFAS intentionally added |
| Fillers               | Glass Fiber, Glass Bead   |
| Polymer Types         | Polypropylene, Unspecified (PP, Unspecified)  |
| Processing Techniques | Injection Molding   |

| INDUSTRY                   | SUB INDUSTRY                                       |
|----------------------------|--|
| Consumer                   | Sport/Leisure, Personal Accessory, Home Appliances |
| 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                    | 50                      | MPa   | ISO 527      |
| Tensile Strain, break, 5 mm/min                    | 3.5                     | %     | ISO 527      |
| Tensile Modulus, 1 mm/min                          | 4500                    | MPa   | ISO 527      |
| Flexural Stress, break, 2 mm/min                   | 58                      | MPa   | ISO 178      |
| Flexural Modulus, 2 mm/min                         | 3800                    | MPa   | ISO 178      |
| IMPACT (1)   |                         |       |              |
| Izod Impact, unnotched 80*10*4 +23°C               | 35                      | kJ/m² | ISO 180/1U   |
| Izod Impact, notched 80*10*4 +23°C                 | 14                      | kJ/m² | ISO 180/1A   |
| THERMAL (1)  |                         |       |              |
| CTE, 23°C to 60°C, flow                            | 3.7E-05                 | 1/°C  | ISO 11359-2  |
| CTE, 23°C to 60°C, xflow                           | 1.25E-04                | 1/°C  | ISO 11359-2  |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm              | 133                     | °C    | ISO 75/Af    |
| Relative Temp Index, Elec <sup>(2)</sup>           | 65                      | °C    | UL 746B      |
| Relative Temp Index, Mech w/impact (2)             | 65                      | °C    | UL 746B      |
| Relative Temp Index, Mech w/o impact (2)           | 65                      | °C    | UL 746B      |
| PHYSICAL (1)                                       |                         |       |              |
| Mold Shrinkage on Tensile Bar, flow <sup>(3)</sup> | 0.1 – 0.3               | %     | SABIC method |
| Density  | 1.32                    | g/cm³ | ISO 1183     |
| FLAME CHARACTERISTICS (2)                          |                         |       |              |
| UL Yellow Card Link                                | <u>E45329-101282765</u> | -     | •            |
|  |                         |       |              |



| PROPERTIES                             | TYPICAL VALUES    | UNITS | TEST METHODS |
|--|-------------------|-------|--------------|
| UL Yellow Card Link 2                  | E207780-101344665 | -     | -            |
| UL Recognized, 94HB Flame Class Rating | ≥0.75             | mm    | UL 94        |
| INJECTION MOLDING (4)                  |                   |       |              |
| Drying Temperature                     | 80                | °C    |              |
| Drying Time                            | 4                 | Hrs   |              |
| Melt Temperature                       | 225 – 250         | °C    |              |
| Front - Zone 3 Temperature             | 240 – 250         | °C    |              |
| Middle - Zone 2 Temperature            | 215 – 225         | °C    |              |
| Rear - Zone 1 Temperature              | 195 – 205         | °C    |              |
| Mold Temperature                       | 30 – 50           | °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) 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.
- (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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