

# LNPT<sup>TM</sup> THERMOCOMP<sup>TM</sup> COMPOUND 9X99089

## DESCRIPTION

LNP THERMOCOMP 9X99089 compound is based on Polyetherimide (PEI) resin containing 20% carbon fiber. Added features of this grade include: Electrically Conductive.

### GENERAL INFORMATION

|                       |                                                                                                                                 |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Features              | Electrically Conductive, Carbon fiber filled, High stiffness/Strength, High temperature resistance, No PFAS intentionally added |
| Fillers               | Carbon Fiber                                                                                                                    |
| Polymer Types         | Polyetherimide (PEI)                                                                                                            |
| Processing Techniques | Injection Molding                                                                                                               |

### INDUSTRY

Building and Construction  
Consumer  
Electrical and Electronics  
Industrial

### SUB INDUSTRY

Building Component  
Personal Accessory, Home Appliances, Commercial Appliance  
Mobile Phone - Computer - Tablets  
Electrical, Defense

## TYPICAL PROPERTY VALUES

Revision 20231109

| PROPERTIES                              | TYPICAL VALUES | UNITS             | TEST METHODS |
|-----------------------------------------|----------------|-------------------|--------------|
| <b>MECHANICAL <sup>(1)</sup></b>        |                |                   |              |
| Tensile Stress, break, 5 mm/min         | 185            | MPa               | ISO 527      |
| Tensile Strain, break, 5 mm/min         | 1.7            | %                 | ISO 527      |
| Tensile Modulus, 1 mm/min               | 11100          | MPa               | ISO 527      |
| Flexural Stress, yield, 2 mm/min        | 214            | MPa               | ISO 178      |
| Flexural Modulus, 2 mm/min              | 10900          | 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      | 6              | kJ/m <sup>2</sup> | ISO 180/1A   |
| <b>THERMAL <sup>(1)</sup></b>           |                |                   |              |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm   | 213            | °C                | ISO 75/Af    |
| <b>PHYSICAL <sup>(1)</sup></b>          |                |                   |              |
| Mold Shrinkage, flow <sup>(2)</sup>     | 0.4            | %                 | SABIC method |
| Density                                 | 1.34           | g/cm <sup>3</sup> | ISO 1183     |
| <b>INJECTION MOLDING <sup>(3)</sup></b> |                |                   |              |
| Drying Temperature                      | 120 – 150      | °C                |              |
| Drying Time                             | 4 – 6          | Hrs               |              |
| Maximum Moisture Content                | 0.02           | %                 |              |
| Melt Temperature                        | 360 – 365      | °C                |              |
| Front - Zone 3 Temperature              | 365 – 375      | °C                |              |
| Middle - Zone 2 Temperature             | 355 – 365      | °C                |              |

| PROPERTIES                | TYPICAL VALUES | UNITS | TEST METHODS |
|---------------------------|----------------|-------|--------------|
| Rear - Zone 1 Temperature | 345 – 355      | °C    |              |
| Mold Temperature          | 120 – 150      | °C    |              |
| Back Pressure             | 0.3 – 0.7      | MPa   |              |
| Screw Speed               | 60 – 100       | 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.

#### ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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