

LNPT[™] THERMOCOMP[™] COMPOUND DX15354

DESCRIPTION

LNP THERMOCOMP DX15354 compound is based on Polycarbonate (PC) resin containing proprietary fillers and available in black color only. Added features of this grade include: Improved Plating Surface and Mechanical Performance targeted for Laser Direct Structuring (LDS) applications, Improved Heat Resistance.

| GENERAL INFORMATION | |
|-----------------------|---|
| Features | Dielectrics, Laser Direct Structuring, High temperature resistance, No PFAS intentionally added |
| Fillers | Unreinforced |
| Polymer Types | Polycarbonate (PC) |
| Processing Techniques | Injection Molding |

| INDUSTRY | SUB INDUSTRY |
|----------------------------|-----------------------------------|
| Automotive | Automotive Interiors |
| Consumer | Personal Accessory |
| Electrical and Electronics | Mobile Phone - Computer - Tablets |
| Industrial | Electrical |

TYPICAL PROPERTY VALUES

Revision 20230607

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------------------|--------------|
| MECHANICAL ⁽¹⁾ | | | |
| Tensile Stress, brk, Type I, 5 mm/min | 59 | MPa | ASTM D638 |
| Tensile Strain, brk, Type I, 5 mm/min | 11 | % | ASTM D638 |
| Tensile Modulus, 5 mm/min | 2920 | MPa | ASTM D638 |
| Flexural Strength, 1.3 mm/min, 50 mm span | 111 | MPa | ASTM D790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 2890 | MPa | ASTM D790 |
| Tensile Stress, break, 50 mm/min | 58 | MPa | ISO 527 |
| Tensile Strain, break, 50 mm/min | 11 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 2940 | MPa | ISO 527 |
| Flexural Strength, 2 mm/min | 112 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 2880 | MPa | ISO 178 |
| IMPACT ⁽¹⁾ | | | |
| Izod Impact, unnotched, 23°C | 2160 | J/m | ASTM D4812 |
| Izod Impact, notched, 23°C | 61 | J/m | ASTM D256 |
| Izod Impact, unnotched 80°10'3 +23°C | 182 | kJ/m ² | ISO 180/1U |
| Izod Impact, notched 80°10'3 +23°C | 7 | kJ/m ² | ISO 180/1A |
| THERMAL ⁽¹⁾ | | | |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 168 | °C | ASTM D648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 155 | °C | ASTM D648 |
| CTE, -40°C to 40°C, flow | 6.3E-05 | 1/°C | ASTM E831 |
| CTE, -40°C to 40°C, xflow | 6.7E-05 | 1/°C | ASTM E831 |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|----------------|-------------------------|--------------|
| PHYSICAL ⁽¹⁾ | | | |
| Density | 1.29 | g/cm ³ | ASTM D792 |
| Moisture Absorption (23°C / 50% RH) | 0.13 | % | ISO 62 |
| Melt Volume Rate, MVR at 330°C/ 1.2 kg | 22.8 | cm ³ /10 min | ISO 1133 |
| ELECTRICAL ⁽¹⁾ | | | |
| Dielectric Constant, 1.1 GHz | 2.95 | - | SABIC method |
| Dissipation Factor, 1.1 GHz | 0.006 | - | SABIC method |
| INJECTION MOLDING ⁽²⁾ | | | |
| Drying Temperature | 135 | °C | |
| Drying Time | 4 – 6 | Hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 300 – 345 | °C | |
| Nozzle Temperature | 295 – 340 | °C | |
| Front - Zone 3 Temperature | 300 – 345 | °C | |
| Middle - Zone 2 Temperature | 290 – 335 | °C | |
| Rear - Zone 1 Temperature | 280 – 315 | °C | |
| Mold Temperature | 95 – 130 | °C | |
| Back Pressure | 0.3 – 0.7 | MPa | |
| Screw Speed | 40 – 90 | rpm | |
| Shot to Cylinder Size | 40 – 60 | % | |
| Vent Depth | 0.025 – 0.08 | mm | |

(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) 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.

MORE INFORMATION

For curve data and CAE cards, please visit and register at <https://materialfinder.sabic-specialties.com>

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