# LNP™ THERMOCOMP™ Compound DX13354X

## DESCRIPTION

LNP THERMOCOMP DX13354X compound is based on Polycarbonate (PC) resin containing 30% glass fiber. Added features of this grade include: Improved Plating Surface and Mechanical Performance targeted for Laser Direct Structuring (LDS) applications, Improved Impact, Good Surface Aesthetics, Wide Processing Window and Colorable.

| GENERAL INFORMATION | |
|---|---|
| **Features** | Dielectrics, Laser Direct Structuring, Aesthetics/Visual effects, Impact resistant, No PFAS intentionally added |
| **Fillers** | Glass Fiber (Total fluorine >50ppm only from inorganic fluorine) |
| **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 20260416

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL [1] | | | |
| **Tensile Stress, brk, Type I, 5 mm/min** | 90 | MPa | ASTM D638 |
| **Tensile Strain, brk, Type I, 5 mm/min** | 2.2 | % | ASTM D638 |
| **Tensile Modulus, 5 mm/min** | 6900 | MPa | ASTM D638 |
| **Flexural Strength, 1.3 mm/min, 50 mm span** | 130 | MPa | ASTM D790 |
| **Flexural Modulus, 1.3 mm/min, 50 mm span** | 6300 | MPa | ASTM D790 |
| **Tensile Stress, break, 5 mm/min** | 90 | MPa | ISO 527 |
| **Tensile Strain, break, 5 mm/min** | 2.1 | % | ISO 527 |
| **Tensile Modulus, 1 mm/min** | 6600 | MPa | ISO 527 |
| **Flexural Strength, 2 mm/min** | 130 | MPa | ISO 178 |
| **Flexural Modulus, 2 mm/min** | 6400 | MPa | ISO 178 |
| IMPACT [1] | | | |
| **Izod Impact, unnotched, 23°C** | 500 | J/m | ASTM D4812 |
| **Izod Impact, notched, 23°C** | 90 | J/m | ASTM D256 |
| **Izod Impact, unnotched 80*10*4 +23°C** | 32 | kJ/m² | ISO 180/1U |
| **Izod Impact, notched 80*10*4 +23°C** | 9 | kJ/m² | ISO 180/1A |
| **Charpy Impact, unnotched, 23°C** | 36 | kJ/m² | ISO 179/2C |
| **Charpy Impact, notched, 23°C** | 9 | kJ/m² | ISO 179/2C |
| THERMAL [1] | | | |
| **HDT, 0.45 MPa, 3.2 mm** | 124 | °C | ASTM D648 |
| **HDT, 1.82 MPa, 3.2 mm** | 120 | °C | ASTM D648 |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| **CTE, -40°C to 40°C, flow** | 2.2E-05 | 1/°C | ASTM E831 |
| **CTE, -40°C to 40°C, xflow** | 6.3E-05 | 1/°C | ASTM E831 |
| **CTE, -40°C to 40°C, flow** | 1.9E-05 | 1/°C | ISO 11359-2 |
| **CTE, -40°C to 40°C, xflow** | 6.1E-05 | 1/°C | ISO 11359-2 |
| **HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm** | 126 | °C | ISO 75/Bf |
| **HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm** | 122 | °C | ISO 75/Af |
| **PHYSICAL** (1) | | | |
| **Specific Gravity** | 1.43 | - | ASTM D792 |
| **Mold Shrinkage, flow, 3.2 mm** (2) | 0.1 – 0.3 | % | SABIC method |
| **Mold Shrinkage, xflow, 3.2 mm** (2) | 0.3 – 0.5 | % | SABIC method |
| **Melt Flow Rate** | | | |
| 280°C/2.16 kgf | 12 | g/10 min | ASTM D1238 |
| 300°C/1.2 kgf | 16 | g/10 min | ASTM D1238 |
| **Melt Volume Rate** | | | |
| 300°C/1.2 kg | 13 | cm³/10 min | ASTM D1238 |
| **Density** | 1.43 | g/cm³ | ISO 1183 |
| **ELECTRICAL** (1) | | | |
| **Dielectric Constant** | | | |
| 1.1 GHz | 3.47 | - | SABIC method |
| 1.9 GHz | 3.45 | - | SABIC method |
| 5 GHz | 3.45 | - | SABIC method |
| **Dissipation Factor** | | | |
| 1.1 GHz | 0.013 | - | SABIC method |
| 1.9 GHz | 0.012 | - | SABIC method |
| 5 GHz | 0.011 | - | SABIC method |
| **INJECTION MOLDING** (3) | | | |
| **Drying Temperature** | 110 | °C | |
| **Drying Time** | 3 – 4 | Hrs | |
| **Melt Temperature** | 270 – 295 | °C | |
| **Nozzle Temperature** | 270 – 295 | °C | |
| **Front - Zone 3 Temperature** | 270 – 295 | °C | |
| **Middle - Zone 2 Temperature** | 270 – 295 | °C | |
| **Rear - Zone 1 Temperature** | 270 – 295 | °C | |
| **Mold Temperature** | 100 – 120 | °C | |

(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.

## MORE INFORMATION

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

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