

LNPTTM THERMOCOMPTM COMPOUND DC004E

DC-1004 EM

DESCRIPTION

LNP THERMOCOMP DC004E compound is based on Polycarbonate (PC) resin containing 20% carbon fiber. Added features of this grade include: Easy Molding, Electrically Conductive.

| GENERAL INFORMATION | |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Features | Electrically Conductive, Good Processability, Carbon fiber filled, High stiffness/Strength, No PFAS intentionally added |
| Fillers | Carbon Fiber |
| Polymer Types | Polycarbonate (PC) |
| Processing Techniques | Injection Molding |

| INDUSTRY | SUB INDUSTRY |
|----------------------------|-----------------------------------|
| Building and Construction | Building Component |
| Consumer | Personal Accessory |
| 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 | 165 | MPa | ISO 527 |
| Tensile Strain, break, 5 mm/min | 2.1 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 12200 | MPa | ISO 527 |
| Flexural Stress, yield, 2 mm/min | 227 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 11900 | MPa | ISO 178 |
| IMPACT ⁽¹⁾ | | | |
| Izod Impact, unnotched 80*10*4 +23°C | 40 | kJ/m ² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 8 | kJ/m ² | ISO 180/1A |
| THERMAL ⁽¹⁾ | | | |
| CTE, 23°C to 60°C, flow | 9.E-06 | 1/°C | ISO 11359-2 |
| CTE, 23°C to 60°C, xflow | 6.5E-05 | 1/°C | ISO 11359-2 |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 141 | °C | ISO 75/Bf |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 136 | °C | ISO 75/Af |
| PHYSICAL ⁽¹⁾ | | | |
| Mold Shrinkage on Tensile Bar, flow ⁽²⁾ | 0.1 – 0.2 | % | SABIC method |
| Density | 1.27 | g/cm ³ | ISO 1183 |
| ELECTRICAL ⁽¹⁾ | | | |
| Surface Resistivity | 1.E+02 – 1.E+03 | Ω | ASTM D257 |
| INJECTION MOLDING ⁽³⁾ | | | |

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|-----------------------------|----------------|-------|--------------|
| Drying Temperature | 120 | °C | |
| Drying Time | 4 | Hrs | |
| Maximum Moisture Content | 0.02 | % | |
| Melt Temperature | 305 – 325 | °C | |
| Front - Zone 3 Temperature | 320 – 330 | °C | |
| Middle - Zone 2 Temperature | 310 – 320 | °C | |
| Rear - Zone 1 Temperature | 295 – 305 | °C | |
| Mold Temperature | 80 – 110 | °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) 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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