# LNP™ THERMOCOMP™ COMPOUND DF0029ER

DF-1002 EM FR MR
REGION ASIA

## DESCRIPTION

LNP THERMOCOMP DF0029ER is a compound based on Polycarbonate resin containing 10% Glass Fiber. Added features of this material include: Easy Molding, Mold Release, Flame Retardant.

## TYPICAL PROPERTY VALUES

Revision 20191218

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, yield | 83 | MPa | ASTM D 638 |
| Tensile Stress, break | 79 | MPa | ASTM D 638 |
| Tensile Strain, yield | 3.9 | % | ASTM D 638 |
| Tensile Strain, break | 5.5 | % | ASTM D 638 |
| Tensile Modulus, 50 mm/min | 4130 | MPa | ASTM D 638 |
| Flexural Modulus | 4130 | MPa | ASTM D 790 |
| Tensile Stress, yield | 84 | MPa | ISO 527 |
| Tensile Stress, break | 81 | MPa | ISO 527 |
| Tensile Strain, yield | 3.7 | % | ISO 527 |
| Tensile Strain, break | 4.7 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 4460 | MPa | ISO 527 |
| Flexural Stress | 129 | MPa | ISO 178 |
| Flexural Modulus | 4100 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 865 | J/m | ASTM D 4812 |
| Izod Impact, notched, 23°C | 85 | J/m | ASTM D 256 |
| Instrumented Impact Energy @ peak, 23°C | 16 | J | ASTM D 3763 |
| Multiaxial Impact | 7 | J | ISO 6603 |
| Izod Impact, unnotched 80*10*4 +23°C | 59 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 7 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 142 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 136 | °C | ASTM D 648 |
| CTE, -40°C to 40°C, flow | 5.04E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 40°C, xflow | 5.94E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 40°C, flow | 5.E-05 | 1/°C | ISO 11359-2 |
| CTE, -40°C to 40°C, xflow | 5.9E-05 | 1/°C | ISO 11359-2 |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 143 | °C | ISO 75/Bf |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 136 | °C | ISO 75/Af |
| PHYSICAL | | | |
| Density | 1.3 | g/cm³ | ASTM D 792 |
| Moisture Absorption, 50% RH, 24 hrs | 0.1 | % | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs | 0.6 – 0.8 | % | ASTM D 955 |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Mold Shrinkage, xflow, 24 hrs | 0.6 – 0.8 | % | ASTM D 955 |
| Mold Shrinkage, flow, 24 hrs | 0.67 | % | ISO 294 |
| Mold Shrinkage, xflow, 24 hrs | 0.68 | % | ISO 294 |
| Density | 1.3 | g/cm³ | ISO 1183 |
| INJECTION MOLDING | | | |
| 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 | |

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