# LNP™ THERMOCOMP™ COMPOUND DX06411H

DF-1004 EM MR HC

## DESCRIPTION

LNP THERMOCOMP DX06411H is a compound based on Polycarbonate resin containing 20% Glass Fiber. Added features of this material include: Easy Molding, Mold Release, Healthcare.

## TYPICAL PROPERTY VALUES

Revision 20191216

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 5 mm/min | 104 | MPa | ASTM D 638 |
| Tensile Stress, brk, Type I, 5 mm/min | 101 | MPa | ASTM D 638 |
| Tensile Strain, yld, Type I, 5 mm/min | 3.1 | % | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 3.9 | % | ASTM D 638 |
| Tensile Modulus, 50 mm/min | 6960 | MPa | ASTM D 638 |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 174 | MPa | ASTM D 790 |
| Flexural Stress, brk, 1.3 mm/min, 50 mm span | 174 | MPa | ASTM D 790 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 6090 | MPa | ASTM D 790 |
| Tensile Stress, yield, 5 mm/min | 104 | MPa | ISO 527 |
| Tensile Stress, break, 5 mm/min | 102 | MPa | ISO 527 |
| Tensile Strain, yield, 5 mm/min | 2.9 | % | ISO 527 |
| Tensile Strain, break, 5 mm/min | 3.8 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 6990 | MPa | ISO 527 |
| Flexural Stress | 175 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 6000 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 947 | J/m | ASTM D 4812 |
| Izod Impact, notched, 23°C | 118 | J/m | ASTM D 256 |
| Multiaxial Impact | 4 | J | ISO 6603 |
| Instrumented Impact Total Energy, 23°C | 18 | J | ASTM D 3763 |
| Izod Impact, unnotched 80*10*4 +23°C | 59 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 11 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 140 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 136 | °C | ASTM D 648 |
| CTE, -30°C to 30°C, flow | 3.E-06 | 1/°C | ASTM D 696 |
| CTE, -30°C to 30°C, xflow | 7.E-06 | 1/°C | ASTM D 696 |
| 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 | 137 | °C | ISO 75/Af |
| PHYSICAL | | | |
| Specific Gravity | 1.35 | - | ASTM D 792 |
| Density | 1.35 | g/cm³ | ASTM D 792 |
| Moisture Absorption, 50% RH, 24 hrs | 0.01 | % | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs | 0.3 – 0.5 | % | ASTM D 955 |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Mold Shrinkage, xflow, 24 hrs | 0.5 – 0.7 | % | ASTM D 955 |
| Moisture Absorption (23°C / 50% RH) | 0.01 | % | ISO 62 |
| 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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