# LNP™ LUBRICOMP™ COMPOUND DFL36ELH

DFL-4036 EM LE HC
REGION ASIA

## DESCRIPTION

LNP* LUBRICOMP* DFL36ELH is a compound based on Polycarbonate resin containing 30% Glass Fiber, 15% PTFE. Added features of this material include: Wear Resistant, Low Extractable, Easy Molding, Healthcare.

## TYPICAL PROPERTY VALUES

Revision 20190806

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, yield | 113 | MPa | ASTM D 638 |
| Tensile Stress, break | 112 | MPa | ASTM D 638 |
| Tensile Strain, yield | 2.4 | % | ASTM D 638 |
| Tensile Strain, break | 2.5 | % | ASTM D 638 |
| Tensile Modulus, 50 mm/min | 9650 | MPa | ASTM D 638 |
| Flexural Stress | 179 | MPa | ASTM D 790 |
| Flexural Modulus | 8960 | MPa | ASTM D 790 |
| Tensile Stress, yield | 114 | MPa | ISO 527 |
| Tensile Stress, break | 113 | MPa | ISO 527 |
| Tensile Strain, yield | 2.4 | % | ISO 527 |
| Tensile Strain, break | 2.6 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 9280 | MPa | ISO 527 |
| Flexural Stress | 180 | MPa | ISO 178 |
| Flexural Modulus | 8700 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, unnotched, 23°C | 854 | J/m | ASTM D 4812 |
| Izod Impact, notched, 23°C | 176 | J/m | ASTM D 256 |
| Instrumented Impact Energy @ peak, 23°C | 21 | J | ASTM D 3763 |
| Multiaxial Impact | 7 | J | ISO 6603 |
| Izod Impact, unnotched 80*10*4 +23°C | 51 | kJ/m² | ISO 180/1U |
| Izod Impact, notched 80*10*4 +23°C | 17 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 147 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 142 | °C | ASTM D 648 |
| CTE, -40°C to 40°C, flow | 4.68E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 40°C, xflow | 3.06E-05 | 1/°C | ASTM E 831 |
| CTE, -40°C to 40°C, flow | 4.7E-05 | 1/°C | ISO 11359-2 |
| CTE, -40°C to 40°C, xflow | 3.E-05 | 1/°C | ISO 11359-2 |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 149 | °C | ISO 75/Bf |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 144 | °C | ISO 75/Af |
| PHYSICAL | | | |
| Density | 1.55 | g/cm³ | ASTM D 792 |
| Mold Shrinkage, flow, 24 hrs | 0.1 – 0.3 | % | 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 | 0.21 | % | ISO 294 |
| Mold Shrinkage, xflow, 24 hrs | 0.71 | % | ISO 294 |
| Wear Factor Washer | 27 | 10^-10 in^5-min/ft-lb-hr | ASTM D 3702 Modified: Manual |
| Dynamic COF | 0.57 | - | ASTM D 3702 Modified: Manual |
| Static COF | 0.49 | - | ASTM D 3702 Modified: Manual |
| Density | 1.55 | 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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