# LNP™ COLORCOMP™ COMPOUND D10006U

D10006U

## DESCRIPTION

LNP COLORCOMP D10006U is an unfilled Polycarbonate. Added features include: Lasermarking Capability, UL Listed.

## TYPICAL PROPERTY VALUES

Revision 20191216

| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| MECHANICAL | | | |
| Tensile Stress, yld, Type I, 5 mm/min | 61 | MPa | ASTM D 638 |
| Tensile Stress, brk, Type I, 5 mm/min | 54 | MPa | ASTM D 638 |
| Tensile Strain, yld, Type I, 5 mm/min | 6 | % | ASTM D 638 |
| Tensile Strain, brk, Type I, 5 mm/min | 79 | % | ASTM D 638 |
| Tensile Modulus, 5 mm/min | 2470 | MPa | ASTM D 638 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | 2440 | MPa | ASTM D 790 |
| Tensile Stress, yield, 5 mm/min | 60 | MPa | ISO 527 |
| Tensile Stress, break, 5 mm/min | 55 | MPa | ISO 527 |
| Tensile Strain, yield, 5 mm/min | 6 | % | ISO 527 |
| Tensile Strain, break, 5 mm/min | 151 | % | ISO 527 |
| Tensile Modulus, 1 mm/min | 2460 | MPa | ISO 527 |
| Flexural Stress | 89 | MPa | ISO 178 |
| Flexural Modulus, 2 mm/min | 2320 | MPa | ISO 178 |
| IMPACT | | | |
| Izod Impact, notched, 23°C | 741 | J/m | ASTM D 256 |
| Multiaxial Impact | 76 | J | ISO 6603 |
| Instrumented Impact Total Energy, 23°C | 63 | J | ASTM D 3763 |
| Izod Impact, notched 80*10*4 +23°C | 58 | kJ/m² | ISO 180/1A |
| THERMAL | | | |
| HDT, 0.45 MPa, 3.2 mm, unannealed | 138 | °C | ASTM D 648 |
| HDT, 1.82 MPa, 3.2mm, unannealed | 125 | °C | ASTM D 648 |
| CTE, -30°C to 30°C, flow | 7.1E-05 | 1/°C | ASTM D 696 |
| CTE, -30°C to 30°C, xflow | 6.93E-03 | 1/°C | ASTM D 696 |
| HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm | 136 | °C | ISO 75/Bf |
| HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm | 124 | °C | ISO 75/Af |
| Relative Temp Index, Elec [1] | 130 | °C | UL 746B |
| Relative Temp Index, Mech w/impact [1] | 120 | °C | UL 746B |
| Relative Temp Index, Mech w/o impact [1] | 130 | °C | UL 746B |
| PHYSICAL | | | |
| Specific Gravity | 1.24 | - | ASTM D 792 |
| Density | 1.24 | g/cm³ | ASTM D 792 |
| Moisture Absorption, 50% RH, 24 hrs | 0.13 | % | ASTM D 570 |
| Mold Shrinkage, flow, 24 hrs | 0.6 – 0.8 | % | ASTM D 955 |
| Mold Shrinkage, xflow, 24 hrs | 0.8 – 1 | % | ASTM D 955 |

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| PROPERTIES | TYPICAL VALUES | UNITS | TEST METHODS |
|---|---|---|---|
| Moisture Absorption (23°C / 50% RH) | 0.24 | % | ISO 62 |
| FLAME CHARACTERISTICS [1] | | | |
| UL Yellow Card Link | E121562-101212682 | - | - |
| UL Recognized, 94V-0 Flame Class Rating | ≥3 | mm | UL 94 |
| UL Recognized, 94V-2 Flame Class Rating | ≥0.5 | mm | UL 94 |
| 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 | |

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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