

LAPEROS® S150

Polyplastics - Liquid Crystal Polymer

General Information

Product Description

High Heat Resistance, High-temperature Stiffness

High Stiffness

General

| | |
|-------------------------------|---|
| Filler / Reinforcement | • Glass Fiber, 50% Filler by Weight |
| Features | • High Heat Resistance • High Stiffness |
| UL File Number | • E106764 |
| Part Marking Code (ISO 11469) | • >LCP-GF50< |

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-----------------------|-----------------|
| Density | 1.81 | g/cm ³ | ISO 1183 |
| Molding Shrinkage ² | | | Internal Method |
| Across Flow : 0.0394 in | 0.52 | % | |
| Flow : 0.0394 in | 0.17 | % | |
| Water Absorption (24 hr, 73°F, 0.0394 in) | 0.040 | % | ISO 62 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength | 21800 | psi | ASTM D638 |
| Tensile Elongation (Break) | 1.3 | % | ASTM D638 |
| Flexural Modulus | 2.90E+6 | psi | ISO 178 |
| Flexural Stress | 30500 | psi | ISO 178 |
| Flexural Strain | 1.3 | % | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength (73°F) | 4.3 | ft-lb/in ² | ISO 179/1eA |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (M-Scale) | 85 | | ISO 2039-2 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load 264 psi, Unannealed | 626 | °F | ISO 75-2/A |
| Electrical | Nominal Value | Unit | Test Method |
| Volume Resistivity | 3.0E+16 | ohms·cm | IEC 60093 |
| Electric Strength | | | IEC 60243-1 |
| 0.0394 in | 810 | V/mil | |
| 0.118 in | 510 | V/mil | |
| Relative Permittivity | | | IEC 60250 |
| 1 kHz | 4.70 | | |
| 1 MHz | 4.60 | | |
| Dissipation Factor | | | IEC 60250 |
| 1 kHz | 0.010 | | |
| 1 MHz | 0.010 | | |
| Arc Resistance | 172 | sec | ASTM D495 |

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| Electrical | Nominal Value | Unit | Test Method |
|-------------------------------|----------------------|-------------|--------------------|
| Comparative Tracking Index | 125 | V | IEC 60112 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating | V-0 | | UL 94 |
| Additional Information | Nominal Value | Unit | |
| Color Number | VF2001/BK010P | | |

Notes

¹ Typical properties: these are not to be construed as specifications.

² 80x80x1 mm, 60 MPa Injection Pressure