

LUPOX GP1000H

Injection Molding, PBT

Description

High Flow, Good Impact

Application

Automotive(Connector)

| Properties | Test Condition | Test Method | Unit | Typical Value |
|---|----------------|-------------|--------------------|---------------|
| Physical | | | | |
| Specific Gravity | | ASTM D792 | - | 1.29 |
| Molding Shrinkage | | ASTM D955 | % | 1.2 ~ 2.0 |
| Melt Flow Rate | 250 °C/2.16kg | ASTM D1238 | g/10min | 50 |
| Water Absorption | 23 °C, 24hrs | ASTM D570 | % | 0.08 |
| Mechanical | | | | |
| Tensile Strength, 3.2mm | | ASTM D638 | | |
| @ Yield | 50mm/min | | kg/cm ² | 480 |
| Tensile Elongation, 3.2mm | | ASTM D638 | | |
| @ Yield | 50mm/min | | % | - |
| @ Break | 50mm/min | | % | > 100 |
| Flexural Strength, 3.2mm | 1.3mm/min | ASTM D790 | kg/cm ² | 670 |
| Flexural Modulus, 3.2mm | 1.3mm/min | ASTM D790 | kg/cm ² | 19,000 |
| IZOD Impact Strength, 6.4mm (Notched) | 23 °C | ASTM D256 | kg·cm/cm | 5.0 |
| Thermal | | | | |
| Melt Temperature | | ASTM D3418 | °C | 223 |
| Heat Deflection Temperature, 6.4mm (Unannealed) | 18.6kg | ASTM D648 | °C | 57 |
| | 4.6kg | | °C | |
| Flammability | | UL94 | | |
| 0.71mm | | | class | HB |
| 1.5mm | | | class | HB |
| 3.3mm | | | class | HB |
| Relative Temperature Index | | UL 746B | | |
| Electrical | | | °C | 140 |
| Mechanical with Impact | | | °C | 130 |
| Mechanical without Impact | | | °C | 140 |
| Electrical | | | | |
| Comparative Tracking Index(CTI) | Solution A | UL 746 | PLC | 0 |
| Volume Resistivity | 23 °C | ASTM D257 | Ohm·cm | 1.0E+17 |
| Arc Resistance | 23 °C | ASTM D495 | PLC | 5 |
| Dielectric Strength, 1mm | 23 °C | ASTM D149 | kV/mm | 23 |

Note) All properties, except melt flow rate are measured on injection moulded specimens and after 48 hours storage at 23 °C, 50% relative humidity.

Updated : 1-Jul-14

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Processing Guide (Injection Molding)

| Processing Parameters | Unit | Value | |
|--------------------------|--------------------|-----------|-----------|
| Drying Temperature | °C | 100 ~ 120 | |
| Drying Time | hrs | 4 ~ 6 | |
| Maximum Moisture Content | % | 0.02 | |
| Melt Temperature | °C | 240 ~ 250 | |
| Cylinder Temperature | Rear | °C | 230 ~ 235 |
| | Middle | °C | 235 ~ 240 |
| | Front | °C | 240 ~ 245 |
| Nozzle Temperature | °C | 240 ~ 250 | |
| Mold Temperature | °C | 40 ~ 80 | |
| Back Pressure | kg/cm ² | - | |
| Screw Speed | rpm | - | |

Note) Back Pressure & Screw Speed are only mentioned as general guidelines.

These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.

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