

General Information
Product Description

Description
General Purpose, High Impact at Low Temperature
High Flow, Heat Resistance

Application
Mobile Phone Housing

General

| | | | |
|-------------------|---|--|-------------------|
| Material Status | • Commercial: Active | | |
| Availability | • Asia Pacific • Europe | • Latin America • North America | |
| Features | • General Purpose • Good Heat Resistance | • High Flow • Low Temperature Impact Resistance | |
| Uses | • Cell Phones | • Electrical Housing | • General Purpose |
| Processing Method | • Injection Molding | | |

ASTM & ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|----------------------|-------------------|--------------------|
| Density / Specific Gravity | 1.14 | g/cm ³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (250°C/2.16 kg) | 5.0 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (23°C, 3.20 mm, Injection Molded) | 0.40 to 0.60 | % | ASTM D955 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength ² | | | ASTM D638 |
| Yield, 23°C, 3.20 mm, Injection Molded | 54.9 | MPa | |
| Tensile Elongation ² | | | ASTM D638 |
| Break, 23°C, 3.20 mm, Injection Molded | 100 | % | |
| Flexural Modulus ³ (23°C, 3.20 mm, Injection Molded) | 2260 | MPa | ASTM D790 |
| Flexural Strength ³ (23°C, 3.20 mm, Injection Molded) | 88.3 | MPa | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact | | | ASTM D256 |
| -30°C, 3.20 mm, Injection Molded | 490 | J/m | |
| 23°C, 3.20 mm, Injection Molded | 590 | J/m | |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale, 23°C, Injection Molded) | 111 | | ASTM D785 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load | | | ASTM D648 |
| 1.8 MPa, Unannealed, 6.40 mm, Injection Molded | 112 | °C | |
| RTI Elec | 60.0 | °C | UL 746 |
| RTI Imp | 60.0 | °C | UL 746 |
| RTI Str | 60.0 | °C | UL 746 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating (0.70 mm) | HB | | UL 94 |

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Lupoy® HP5004

LG Chem Ltd. - Polycarbonate + ABS

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature | 80 to 100 | °C |
| Drying Time | 3.0 to 5.0 | hr |
| Suggested Max Moisture | 0.020 | % |
| Rear Temperature | 240 to 250 | °C |
| Middle Temperature | 250 to 280 | °C |
| Front Temperature | 250 to 280 | °C |
| Nozzle Temperature | 250 to 280 | °C |
| Processing (Melt) Temp | 255 to 285 | °C |
| Mold Temperature | 80 to 100 | °C |
| Back Pressure | 0.981 to 3.92 | MPa |
| Screw Speed | 40 to 70 | rpm |

Notes

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

² 50 mm/min

³ 10 mm/min