

LG ABS HI121

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Saturday, July 20, 2019

General Information

Product Description

Description

- Well balanced mechanical properties

Application

- Electric/electronic products, miscellaneous goods

General

| | |
|-------------------|--|
| Material Status | • Commercial: Active |
| Availability | • Asia Pacific • Europe • Latin America • North America |
| Uses | • Electrical/Electronic Applications |
| Processing Method | • Injection Molding |

ASTM & ISO Properties¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-------------------|-------------------------|
| Density / Specific Gravity ² | 1.04 | g/cm ³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg) | 21 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (23°C, 3.20 mm, Injection Molded) | 0.40 to 0.70 | % | ASTM D955 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus ³ (23°C, 3.20 mm, Injection Molded) | 2150 | MPa | ASTM D638 |
| Tensile Strength ³ | | | ASTM D638 |
| Yield, 23°C, 3.20 mm, Injection Molded | 45.0 | MPa | |
| Tensile Elongation ³ | | | ASTM D638 |
| Yield, 23°C, 3.20 mm, Injection Molded | > 5.0 | % | |
| Tensile Elongation ³ | | | ASTM D638 |
| Break, 23°C, 3.20 mm, Injection Molded | > 10 | % | |
| Flexural Modulus ⁴ (23°C, 3.20 mm, Injection Molded) | 2450 | MPa | ASTM D790 |
| Flexural Strength ⁴ (23°C, 3.20 mm, Injection Molded) | 73.0 | MPa | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact | | | ASTM D256 |
| -30°C, 3.20 mm, Injection Molded | 150 | J/m | |
| -30°C, 6.40 mm, Injection Molded | 150 | J/m | |
| 23°C, 3.20 mm, Injection Molded | 320 | J/m | |
| 23°C, 6.40 mm, Injection Molded | 320 | J/m | |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale, 23°C, Injection Molded) | 108 | | ASTM D785 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load | | | ASTM D648 |
| 1.8 MPa, Unannealed, 6.40 mm, Injection Molded | 85.0 | °C | |
| Vicat Softening Temperature | 93.0 | °C | ASTM D1525 ⁵ |
| RTI Elec | 95.0 | °C | UL 746 |
| RTI Imp | 95.0 | °C | UL 746 |

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| Thermal | Nominal Value | Unit | Test Method |
|---------|---------------|------|-------------|
| RTI Str | 95.0 | °C | UL 746 |

| Flammability | Nominal Value | Unit | Test Method |
|--------------|---------------|------|-------------|
| Flame Rating | | | UL 94 |
| 1.5 mm | | HB | |
| 3.0 mm | | HB | |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature | 70 to 80 | °C |
| Drying Time | 2.0 to 4.0 | hr |
| Rear Temperature | 180 to 200 | °C |
| Middle Temperature | 190 to 210 | °C |
| Front Temperature | 200 to 220 | °C |
| Nozzle Temperature | 200 to 230 | °C |
| Processing (Melt) Temp | 210 to 240 | °C |
| Mold Temperature | 40 to 70 | °C |
| Back Pressure | 0.490 to 1.47 | MPa |
| Screw Speed | 30 to 60 | rpm |

Injection Notes

Minimum Moisture Content: 0.01%

Notes

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

² 23°C

³ 50 mm/min

⁴ 15 mm/min

⁵ Rate A (50°C/h), Loading 2 (50 N)