

LG ABS HI100

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Monday, October 7, 2024

General Information

Product Description

Description

HI100 is an ABS product for injection molding and extrusion, designed to have very high impact strength.

Key Features

High Impact Strength

Application

Pipe, Irrigation Part, Fittings, Miscellaneous Goods

General

| | | | |
|-------------------|--------------------------|---------------------------|----------|
| Material Status | • Commercial: Active | | |
| Availability | • Asia Pacific | • Latin America | |
| | • Europe | • North America | |
| Features | • High Impact Resistance | | |
| Uses | • Fittings | • Irrigation Applications | • Piping |
| Processing Method | • Extrusion | • Injection Molding | |

ASTM & ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-------------------|-------------------------|
| Density / Specific Gravity ² | 1.02 | g/cm ³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg) | 11 | 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 Strength ³ | | | ASTM D638 |
| Yield, 23°C, 3.20 mm, Injection Molded | 37.0 | MPa | |
| Tensile Elongation ³ | | | ASTM D638 |
| Break, 23°C, 3.20 mm, Injection Molded | > 10 | % | |
| Flexural Modulus ⁴ (23°C, 6.40 mm, Injection Molded) | 1850 | MPa | ASTM D790 |
| Flexural Strength ⁴ (23°C, 6.40 mm, Injection Molded) | 57.0 | MPa | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact | | | ASTM D256 |
| 23°C, 3.20 mm, Injection Molded | 480 | J/m | |
| 23°C, 6.40 mm, Injection Molded | 440 | J/m | |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale, 23°C, Injection Molded) | 92 | | ASTM D785 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load ⁵ | | | ASTM D648 |
| 1.8 MPa, Unannealed, 6.40 mm, Injection Molded | 84.0 | °C | |
| Vicat Softening Temperature | 90.0 | °C | ASTM D1525 ⁶ |

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Processing Information

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature | 70 to 80 | °C |
| Drying Time | 3.0 to 4.0 | hr |
| Processing (Melt) Temp | 200 to 250 | °C |
| Mold Temperature | 40 to 80 | °C |
| Screw Speed | 30 to 60 | rpm |

Notes

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

² 23°C

³ 50 mm/min

⁴ 10 mm/min

⁵ Edgewise

⁶ Rate A (50°C/h), Loading 2 (50 N)