

Lotte Chemical Corporation - Methyl Methacrylate / ABS

Wednesday, March 9, 2022

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|---------------------|---|--|---------------------------------------|--|--|
| General Information | | | | | |
| General | | | | | |
| Material Status | Commercial: Active | | | | |
| Availability | Africa & Middle EastAsia Pacific | EuropeLatin America | North America | | |

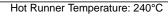
| ASTM & I | SO Properties 1 | | |
|--|-----------------|----------|--------------|
| Physical | Nominal Value | Unit | Test Method |
| Density / Specific Gravity (Natural) | 1.12 | g/cm³ | ASTM D792 |
| Density (Natural) | 1.12 | g/cm³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg) | 25 | g/10 min | ASTM D1238 |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg) | 24 | g/10 min | ISO 1133 |
| Molding Shrinkage - Flow (3.20 mm) | 0.30 | % | ASTM D955 |
| Molding Shrinkage - Across Flow (3.20 mm) | 0.30 | % | ASTM D955 |
| Molding Shrinkage | | | ISO 294-4 |
| Across Flow : 2.00 mm | 0.40 | % | |
| Flow : 2.00 mm | 0.40 | % | |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus ² | 2080 | MPa | ASTM D638 |
| Tensile Modulus | 2500 | MPa | ISO 527-1/50 |
| Tensile Strength ² (Yield) | 49.0 | MPa | ASTM D638 |
| Tensile Stress (Yield) | 52.0 | MPa | ISO 527-2/50 |
| Tensile Strength ² (Break) | 36.3 | MPa | ASTM D638 |
| Tensile Stress (Break) | 36.0 | MPa | ISO 527-2/50 |
| Tensile Elongation ² (Break) | 18 | % | ASTM D638 |
| Tensile Strain (Break) | 22 | % | ISO 527-2/50 |
| Flexural Modulus ³ | 2350 | MPa | ASTM D790 |
| Flexural Modulus ⁴ | 2360 | MPa | ISO 178 |
| Flexural Strength ³ | 66.7 | MPa | ASTM D790 |
| Flexural Stress ⁴ | 70.0 | MPa | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength ⁵ (23°C) | 8.0 | kJ/m² | ISO 179/1eA |
| Notched Izod Impact | | | ASTM D256 |
| 23°C, 3.18 mm | 78 | J/m | |
| 23°C, 6.35 mm | 64 | J/m | |
| Notched Izod Impact Strength ⁵ (23°C) | 7.4 | kJ/m² | ISO 180/1A |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale) | 114 | | ASTM D785 |
| Rockwell Hardness (R-Scale) | 115 | | ISO 2039-2 |
| Pencil Hardness | | | JIS K5401 |
| 6 | F | | |
| 7 | F | | |



Starex BF-0670T

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| Thermal | Nominal Value Unit | Test Method |
|---|--|--------------|
| Deflection Temperature Under Load | | ASTM D648 |
| 0.45 MPa, Unannealed, 6.40 mm | 90.0 °C | |
| Deflection Temperature Under Load | | ISO 75-2/B |
| 0.45 MPa, Unannealed, 4.00 mm | 83.0 °C | |
| Deflection Temperature Under Load | | ISO 75-2/B |
| 0.45 MPa, Annealed, 4.00 mm | 92.0 °C | |
| Deflection Temperature Under Load | | ASTM D648 |
| 1.8 MPa, Unannealed, 6.40 mm | 80.0 °C | |
| Deflection Temperature Under Load | | ISO 75-2/A |
| 1.8 MPa, Unannealed, 4.00 mm | 72.0 °C | |
| Deflection Temperature Under Load | | ISO 75-2/A |
| 1.8 MPa, Annealed, 4.00 mm | 86.0 °C | |
| Vicat Softening Temperature | | |
| | 92.0 °C | ISO 306/B120 |
| | • 92.0 | ISO 306/B50 |
| | • 90.0 | 130 300/850 |
| Flammability | Nominal Value Unit | Test Method |
| Flame Rating | | UL 94 |
| 0.8 mm | НВ | |
| 2.0 mm | НВ | |
| 3.0 mm | НВ | |
| | Processing Information | |
| njection | Nominal Value Unit | |
| Drying Temperature | | |
| Desiccant Dryer | 0° ℃ | |
| Hot Air Dryer | 85 °C | |
| Drying Time | | (R) |
| Desiccant Dryer | 2.0 to 3.0 hr | |
| Hot Air Dryer | 2.0 to 4.0 hr | |
| Suggested Max Moisture | < 0.050 % | |
| Rear Temperature | 190 to 200 °C | |
| | | |
| Middle Temperature | 210 to 220 °C | |
| Middle Temperature Front Temperature | 210 to 220 °C 230 to 240 °C | |
| | | |
| Front Temperature | 230 to 240 °C | |
| Front Temperature Nozzle Temperature | 230 to 240 °C 240 °C | |
| Front Temperature Nozzle Temperature Mold Temperature | 230 to 240 °C 240 °C 40 to 80 °C | |





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Notes

| ¹ Typical properties: | these are not to be construed as specifications. |
|----------------------------------|--|
| ² 5.0 mm/min | |
| ³ 2.8 mm/min | |
| ⁴ 2.0 mm/min | |
| ⁵ 4mm | |

⁶ 500g
⁷ 1000g



