



POLYLAC® PA-717C
CHI MEI CORPORATION - Acrylonitrile Butadiene Styrene

Thursday, January 31, 2019

General Information

General

| | |
|---------------------|----------------------------|
| Material Status | • Commercial: Active |
| Features | • Medium Impact Resistance |
| RoHS Compliance | • RoHS Compliant |
| Resin ID (ISO 1043) | • >ABS< |

ASTM and ISO Properties¹

| Physical | Nominal Value | Unit | Test Method |
|---|---------------------|------------------------|-------------------|
| Density / Specific Gravity ² | 1.04 | g/cm ³ | ASTM D792 |
| Density (23°C) | 1.04 | g/cm ³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 1.3 | g/10 min | ASTM D1238 |
| Melt Volume-Flow Rate (MVR) (220°C/10.0 kg) | 16.0 | cm ³ /10min | ISO 1133 |
| Molding Shrinkage | 0.40 to 0.70 | % | ISO 294-4 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength ³ (Yield) | 42.1 | MPa | ASTM D638 |
| Tensile Stress (Yield) | 44.0 | MPa | ISO 527-2/50 |
| Tensile Stress (Break) | 33.0 | MPa | ISO 527-2/50 |
| Tensile Elongation ³ (Break) | 30 | % | ASTM D638 |
| Tensile Strain (Break) | 30 | % | ISO 527-2/50 |
| Flexural Modulus ⁴ | 2410 | MPa | ASTM D790 |
| Flexural Modulus ⁵ | 1900 | MPa | ISO 178 |
| Flexural Strength ⁴ | 70.3 | MPa | ASTM D790 |
| Flexural Stress ⁵ | 69.0 | MPa | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength | | | ISO 179 |
| | -30°C | 13 | |
| | 23°C | 27 | kJ/m ² |
| Notched Izod Impact | | | ASTM D256 |
| | 23°C, 3.20 mm | 290 | |
| | 23°C, 6.40 mm | 250 | J/m |
| Notched Izod Impact Strength | | | ISO 180/1A |
| | -30°C | 12 | |
| | 23°C | 25 | kJ/m ² |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale) | 115 | | ASTM D785 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load | | | ASTM D648 |
| | 1.8 MPa, Unannealed | 85.0 | |
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 82.0 | °C | ISO 75-2/A |
| Deflection Temperature Under Load (1.8 MPa, Annealed) | 95.0 | °C | ASTM D648 |
| Heat Deflection Temperature (1.8 MPa, Annealed) | 97.0 | °C | ISO 75-2/A |

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| Thermal | Nominal Value | Unit | Test Method |
|-----------------------------|----------------------|-------------|-------------------------|
| Vicat Softening Temperature | 104 | °C | ASTM D1525 ⁶ |
| Vicat Softening Temperature | | | |
| -- | 103 | °C | ISO 306/A50 |
| -- | 98.0 | °C | ISO 306/B50 |
| CLTE - Flow | 8.8E-5 | cm/cm/°C | ISO 11359-2 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating (1.5 mm) | HB | | UL 94 |

Processing Information

| Injection | Nominal Value | Unit |
|--------------------|----------------------|-------------|
| Drying Temperature | 80 to 85 | °C |
| Drying Time | 2.0 to 4.0 | hr |
| Rear Temperature | 180 to 220 | °C |
| Middle Temperature | 190 to 230 | °C |
| Front Temperature | 190 to 230 | °C |
| Mold Temperature | 30 to 70 | °C |

Notes

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

² 23°C

³ 6.0 mm/min

⁴ 2.8 mm/min

⁵ 2.0 mm/min

⁶ Rate A (50°C/h), Loading 1 (10 N)

