# Shinko-Lac® ABS 3001MF

Acrylonitrile Butadiene Styrene

Mitsubishi Rayon America Inc.

## Message:

Shinko-Lac ABS 3001MF is a plating grade of ABS that is especially designed for electro plating of injection molding combined with very good mechanical, etching and thermal cycle properties.
Typical applications of 3001MF include microphone components, knobs, dials and electronic oven handles.

| General Information | |
|---|---|
| Features | Good dimensional stability |
| | Rigidity, high |
| | Highlight |
| | High strength |
| | Impact resistance, good |
| | Electroplateable |
| | Weldable |
| | Workability, good |
| | Sprayable |
| | Machinable |
| | High liquidity |
| | Good chemical resistance |
| | Good toughness |
| | Good appearance |
| | Non-toxic |
| | High hardness |
| Uses | Handle |
| | Electrical/Electronic Applications |
| | Knob |
| UL File Number | E54695 |
| Appearance | Available colors |
| | Natural color |
| Forms | Particle |
| Processing Method | Extrusion |
| | Calendering |
| | Vacuum forming |
| | Injection molding |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Specific Gravity | 1.05 | g/cm³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg) | 3.2 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow | 0.50 | % | ASTM D955 |
| Water Absorption (24 hr) | 0.30 | % | ASTM D570 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Rockwell Hardness (R-Scale) | 109 | | ASTM D785 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus (23°C) | 2450 | MPa | ASTM D638 |
| Tensile Strength (Yield, 23°C) | 41.2 | MPa | ASTM D638 |
| Flexural Modulus (23°C, 6.35 mm) | 2450 | MPa | ASTM D790 |
| Flexural Strength (Yield, 23°C, 6.35 mm) | 65.7 | MPa | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | | | ASTM D256 |
| -40°C, 6.35 mm | 69 | J/m | ASTM D256 |
| 0°C, 6.35 mm | 180 | J/m | ASTM D256 |
| 23°C, 6.35 mm | 240 | J/m | ASTM D256 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (1.8 MPa, Unannealed, 12.7 mm) | 90.0 | °C | ASTM D648 |
| CLTE - Flow | 8.5E-5 | cm/cm/°C | ASTM D696 |
| Specific Heat | 1670 | J/kg/°C | ASTM C351 |
| Thermal Conductivity | 0.21 | W/m/K | ASTM C177 |
| **Flammability** | **Nominal Value** | | **Test Method** |
| Flame Rating (NC) | HB | | UL 94 |
| **Injection** | **Nominal Value** | **Unit** | |
| Drying Temperature | 80.0 - 85.0 | °C | |
| Drying Time | 2.0 - 4.0 | hr | |
| Suggested Max Moisture | 0.10 | % | |
| Rear Temperature | 200 - 250 | °C | |
| Middle Temperature | 200 - 250 | °C | |
| Front Temperature | 200 - 250 | °C | |
| Mold Temperature | 40.0 - 80.0 | °C | |
| Injection Pressure | 68.6 - 108 | MPa | |
| Injection Rate | Slow | | |

**Injection instructions**

Injection rate should be set as slow as possible.



Recommended distributors for this material

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