ASTALOY™ PC/ASA 403

Acrylonitrile Styrene Acrylate + PC

Marplex Australia Pty. Ltd.

Message:

ASTALOY[™] PC/ASA 403 is a profile extrusion/injection moulding alloy of ASA and Polycarbonate and is designed for applications requiring a high degree of product flexibility, UV stability, impact toughness, heat resistance and processability. Typical applications include extruded roadside post profiles as well as injection moulded components such as automotive grilles, rear decor panels and exterior B-pillars. Note: The letters "U" or "W" indicate additional UV stabilisation [ie: ASTALOY[™] PC/ASA 403U].

| General Information | |
|---------------------|---------------------------|
| Features | Good Flexibility |
| | Good Impact Resistance |
| | Good Processability |
| | Good UV Resistance |
| | Medium Heat Resistance |
| | |
| Uses | Automotive Applications |
| | Automotive Exterior Parts |
| | |
| Processing Method | Injection Molding |
| | Profile Extrusion |

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-------------------|-------------|
| Physical | | Unit | |
| Specific Gravity | 1.12 | g/cm ³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (250°C/3.8 kg) | 6.5 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (3.00 mm) | 0.60 | % | ASTM D955 |
| Water Absorption (24 hr) | 0.25 | % | ASTM D570 |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale) | 108 | | ASTM D785 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength ¹ (3.20 mm) | 50.0 | MPa | ASTM D638 |
| Tensile Elongation ² (Break, 3.20 mm) | 150 | % | ASTM D638 |
| Flexural Modulus ³ (3.20 mm) | 2250 | MPa | ASTM D790 |
| Flexural Strength ⁴ (3.20 mm) | 76.0 | MPa | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (3.20 mm) | 700 | J/m | ASTM D256 |
| Gardner Impact (3.20 mm) | 60.0 | J | ASTM D3029 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load | | | ASTM D648 |
| 1.8 MPa, Unannealed, 3.20 mm | 94.0 | °C | |
| 1.8 MPa, Unannealed, 6.40 mm | 99.0 | °C | |
| | | | |

| 1.8 MPa, Unannealed, 12.7 mm | 104 | °C | |
|--|----------------|----------|-------------------------|
| Vicat Softening Temperature | 132 | °C | ASTM D1525 ⁵ |
| CLTE - Flow | 7.2E-5 | cm/cm/°C | ASTM D696 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating (1.60 mm) | НВ | | UL 94 |
| Glow Wire Ignition Temperature (1.60 mm) | 550 | °C | AS/NZS 60695.2.12 |
| njection | Nominal Value | Unit | |
| Drying Temperature | 95.0 to 100 | °C | |
| Drying Time | 3.0 to 5.0 | hr | |
| Rear Temperature | 235 to 255 | °C | |
| Middle Temperature | 245 to 265 | °C | |
| Front Temperature | 255 to 275 | °C | |
| Processing (Melt) Temp | 250 to 280 | °C | |
| Mold Temperature | 50.0 to 90.0 | °C | |
| njection Pressure | 60.0 to 140 | MPa | |
| njection Rate | Moderate | | |
| Back Pressure | 0.100 to 0.500 | MPa | |
| Screw Speed | 40 to 60 | rpm | |
| Clamp Tonnage | 4.0 to 8.0 | kN/cm² | |
| NOTE | | | |
| 1. | 5.0 mm/min | | |
| 2. | 5.0 mm/min | | |
| 3. | 1.3 mm/min | | |
| 4. | 1.3 mm/min | | |
| | | | |

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