



Ultrason® S 3010

BASF Corporation - Polysulfone

Tuesday, November 5, 2019

General Information

Product Description

Ultrason S 3010 is medium viscosity injection molding grade with improved toughness and chemical resistance (stress crack resistance).

Applications

Typical applications include laboratory accessories and household parts.

General

| | | | |
|-------------------|--|--|-----------------|
| Material Status | • Commercial: Active | | |
| Availability | • Asia Pacific | • Europe | • North America |
| Features | • Chemical Resistant • Good ESCR (Stress Crack Resist.) | • Good Toughness • Medium Viscosity | |
| Uses | • Household Goods | • Labware | |
| Agency Ratings | • EC 1907/2006 (REACH) | | |
| RoHS Compliance | • RoHS Compliant | | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

ASTM & ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|------------------------|-------------|
| Density | 1.23 | g/cm ³ | ISO 1183 |
| Melt Volume-Flow Rate (MVR) (360°C/10.0 kg) | 40 | cm ³ /10min | ISO 1133 |
| Molding Shrinkage | | | ISO 294-4 |
| Across Flow | 0.74 | % | |
| Flow | 0.70 | % | |
| Water Absorption (Saturation, 73°F) | 0.80 | % | ISO 62 |
| Water Absorption (Equilibrium, 73°F, 50% RH) | 0.30 | % | ISO 62 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus (73°F) | 370000 | psi | ISO 527-2 |
| Tensile Stress (Yield, 73°F) | 10900 | psi | ISO 527-2 |
| Tensile Strain (Yield, 73°F) | 6.0 | % | ISO 527-2 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength | | | ISO 179 |
| -22°F | 2.9 | ft·lb/in ² | |
| 73°F | 2.6 | ft·lb/in ² | |
| Charpy Unnotched Impact Strength | | | ISO 179 |
| -22°F | No Break | | |
| 73°F | No Break | | |
| Notched Izod Impact Strength | | | ISO 180 |
| -22°F | 2.9 | ft·lb/in ² | |
| 73°F | 2.6 | ft·lb/in ² | |
| Hardness | Nominal Value | Unit | Test Method |
| Ball Indentation Hardness | 19600 | psi | ISO 2039-1 |

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| Thermal | Nominal Value | Unit | Test Method |
|---|---------------|----------|-------------|
| Heat Deflection Temperature (264 psi, Unannealed) | 351 | °F | ISO 75-2/A |
| CLTE - Flow | 2.9E-5 | in/in/°F | |
| RTI Elec | | | UL 746 |
| 0.06 in | 311 | °F | |
| 0.12 in | 311 | °F | |
| RTI Imp | | | UL 746 |
| 0.06 in | 266 | °F | |
| 0.12 in | 266 | °F | |
| RTI Str | | | UL 746 |
| 0.06 in | 311 | °F | |
| 0.12 in | 311 | °F | |
| Electrical | Nominal Value | Unit | Test Method |
| Surface Resistivity | > 1.0E+15 | ohms | IEC 60093 |
| Volume Resistivity | > 1.0E+15 | ohms·cm | IEC 60093 |
| Electric Strength | 940 | V/mil | IEC 60243-1 |
| Dielectric Constant | | | IEC 60250 |
| 100 Hz | 3.10 | | |
| 1 MHz | 3.10 | | |
| Dissipation Factor | | | IEC 60250 |
| 100 Hz | 8.0E-4 | | |
| 1 MHz | 6.4E-3 | | |
| Comparative Tracking Index | 125 | V | IEC 60112 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating | | | UL 94 |
| 0.06 in | HB | | |
| 0.12 in | HB | | |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature | 266 to 302 | °F |
| Drying Time | 4.0 | hr |
| Suggested Max Moisture | 0.020 | % |
| Processing (Melt) Temp | 644 to 734 | °F |
| Mold Temperature | 284 to 356 | °F |
| Injection Pressure | 508 to 1810 | psi |
| Injection Rate | Fast | |

Notes

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

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