

Veradel® A-101

polyethersulfone

Veradel® A-101 is a very low melt flow general purpose amorphous PESU resin for extrusion and injection molding. This transparent grade offers high heat deflection temperature, excellent toughness and dimensional stability and resistance to mineral acids. Other desirable properties include

thermal stability, creep resistance and inherent flame resistance. This grade was formerly marketed as Radel® A PESU.

- Natural: Veradel® A-101 NT

General

| | | |
|-------------------|---|---|
| Material Status | • Commercial: Active | |
| Availability | • Asia Pacific • Europe | • North America |
| Features | • Acid Resistant • Creep Resistant • Flame Retardant • Food Contact Acceptable | • Good Dimensional Stability • Good Thermal Stability • Good Toughness • Steam Resistant |
| Uses | • Film • Sheet | • Tubing |
| Agency Ratings | • NSF STD-51 | |
| Forms | • Pellets | |
| Processing Method | • Extrusion • Film Extrusion | • Sheet Extrusion |

| Physical | Typical Value | Unit | Test method |
|---|---------------|----------|-------------|
| Density / Specific Gravity | 1.37 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (380°C/2.16 kg) | 13 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow | 0.60 | % | ASTM D955 |
| Water Absorption (24 hr) | 0.60 | % | ASTM D570 |

| Mechanical | Typical Value | Unit | Test method |
|----------------------------|---------------|------|-------------|
| Tensile Modulus | 2600 | MPa | ASTM D638 |
| Tensile Strength | 83.0 | MPa | ASTM D638 |
| Tensile Elongation (Yield) | 6.5 | % | ASTM D638 |
| Flexural Modulus | 2900 | MPa | ASTM D790 |
| Flexural Strength | 111 | MPa | ASTM D790 |

| Impact | Typical Value | Unit | Test method |
|-------------------------|---------------|-------|-------------|
| Notched Izod Impact | 85 | J/m | ASTM D256 |
| Tensile Impact Strength | 336 | kJ/m² | ASTM D1822 |

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| Thermal | Typical Value | Unit | Test method |
|--|---------------|----------|-------------|
| Deflection Temperature Under Load 1.8 MPa, Unannealed | 204 | °C | ASTM D648 |
| CLTE - Flow | 4.9E-5 | cm/cm/°C | ASTM D696 |
| RTI Elec (0.8 mm) | 180 | °C | UL 746B |
| RTI Imp (0.8 mm) | 170 | °C | UL 746B |
| Electrical | Typical Value | Unit | Test method |
| Volume Resistivity | 1.7E+15 | ohms-cm | ASTM D257 |
| Dielectric Strength | 15 | kV/mm | ASTM D149 |
| Dielectric Constant | | | ASTM D150 |
| 60 Hz | 3.51 | | |
| 1 kHz | 3.50 | | |
| 1 MHz | 3.54 | | |
| Dissipation Factor | | | ASTM D150 |
| 60 Hz | 1.7E-3 | | |
| 1 kHz | 2.2E-3 | | |
| 1 MHz | 5.6E-3 | | |
| Flammability | Typical Value | Unit | Test method |
| Flame Rating (0.8 mm) | V-0 | | UL 94 |
| Extrusion | Typical Value | Unit | |
| Drying Temperature | 177 | °C | |
| Drying Time | 2.5 | hr | |
| Cylinder Zone 1 Temp. | 327 to 371 | °C | |
| Melt Temperature | 343 to 390 | °C | |

Notes

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

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