

Veradel® A-201

polyethersulfone

Veradel® A-201 is a low melt flow general purpose amorphous PESU resin for extrusion 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. Veradel® A-201 is FDA compliant and is approved for direct food contact. This grade was formerly marketed as Radel® A PESU.

- Natural: Veradel® A-201 NT

General

| | | |
|---------------------------|---|--|
| Material Status | • Commercial: Active | |
| Availability | • Africa & Middle East • Asia Pacific • Europe | • Latin America • North America |
| Features | • Acid Resistant • Chemical Resistant • Creep Resistant • Flame Retardant • Food Contact Acceptable • General Purpose • Good Adhesion • Good Dimensional Stability | • Good Thermal Stability • Good Toughness • High Heat Resistance • High Tensile Strength • Hydrolysis Resistant • Medium Flow • Medium Molecular Weight • Medium Rigidity |
| Uses | • Appliance Components • Appliances • Automotive Electronics • Batteries • Business Equipment | • Electrical Parts • Electrical/Electronic Applications • Food Service Applications • Industrial Applications • Microwave Cookware |
| Agency Ratings | • FDA Food Contact | • NSF STD-51 |
| RoHS Compliance | • RoHS Compliant | |
| Automotive Specifications | • ASTM D6394 SP0212 | |
| Appearance | • Transparent - Slight Yellow | |
| Forms | • Pellets | |
| Processing Method | • Compounding • Extrusion | • Injection Molding |

| Physical | Typical Value | Unit | Test method |
|---|---------------|----------|-------------|
| Density / Specific Gravity | 1.37 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (380°C/2.16 kg) | 20 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow | 0.60 | % | ASTM D955 |
| Water Absorption (24 hr) | 0.50 | % | ASTM D570 |
| Water Absorption - 30 days | 1.9 | % | ASTM D570 |

Veradel® A-201

polyethersulfone

| Mechanical | Typical Value | Unit | Test method |
|----------------------------|---------------|------|-------------|
| Tensile Modulus | 2690 | MPa | ASTM D638 |
| Tensile Strength | 88.9 | MPa | ASTM D638 |
| Tensile Elongation (Yield) | 6.5 | % | ASTM D638 |
| Flexural Modulus | 2620 | MPa | ASTM D790 |
| Flexural Strength | 125 | MPa | ASTM D790 |

| Impact | Typical Value | Unit | Test method |
|---------------------|---------------|------|-------------|
| Notched Izod Impact | 53 | J/m | ASTM D256 |

| Thermal | Typical Value | Unit | Test method |
|--|---------------|----------|-------------|
| Deflection Temperature Under Load 1.8 MPa, Unannealed | 200 | °C | ASTM D648 |
| CLTE – Flow | 5.2E-5 | cm/cm/°C | ASTM D696 |

| 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 ¹ (1.5 mm) | V-0 | | UL 94 |

| Injection | Typical Value | Unit |
|-------------------------|---------------|------|
| Drying Temperature | 175 | °C |
| Drying Time | 2.5 | hr |
| Processing (Melt) Temp | 345 to 385 | °C |
| Mold Temperature | 135 | °C |
| Screw Compression Ratio | 2.2:1.0 | |

| Extrusion | Typical Value | Unit |
|-----------------------|---------------|------|
| Drying Temperature | 175 | °C |
| Drying Time | 2.5 | hr |
| Cylinder Zone 1 Temp. | 335 to 390 | °C |
| Cylinder Zone 2 Temp. | 335 to 390 | °C |
| Cylinder Zone 3 Temp. | 335 to 390 | °C |
| Cylinder Zone 4 Temp. | 335 to 390 | °C |
| Cylinder Zone 5 Temp. | 335 to 390 | °C |
| Adapter Temperature | 325 to 370 | °C |

Veradel® A-201

polyethersulfone

Extrusion

Typical Value Unit

Melt Temperature

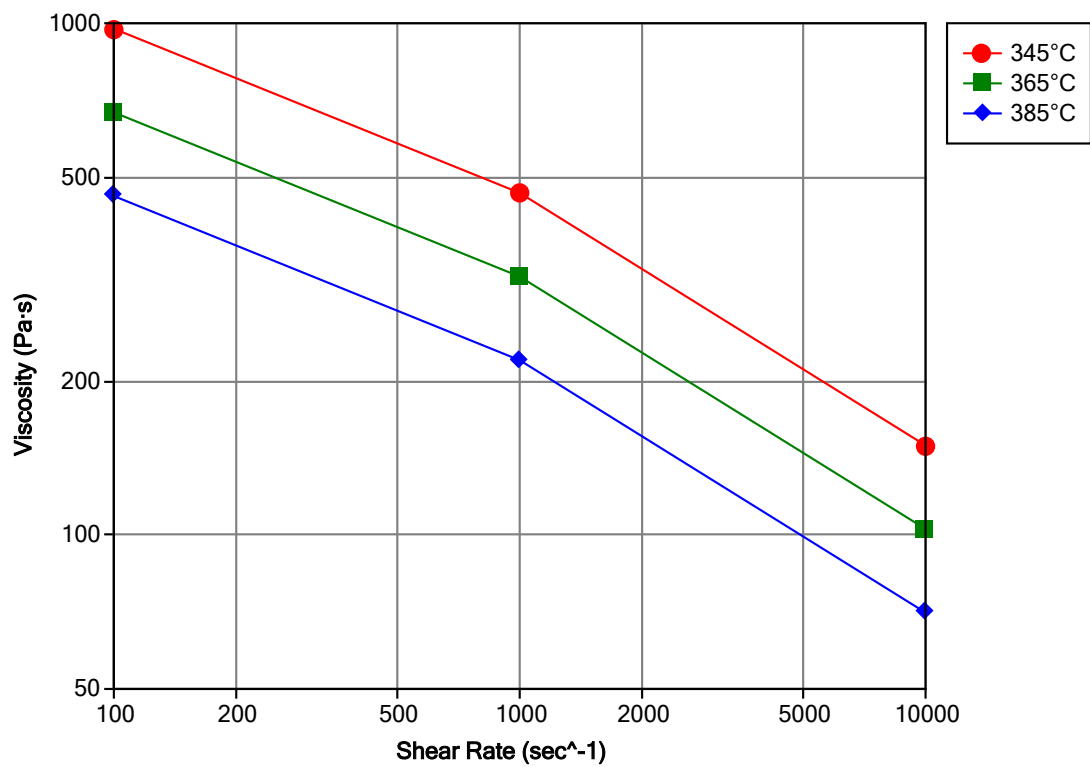
345 to 390 °C

Die Temperature

325 to 370 °C

Veradel® A-201 polyethersulfone

Viscosity vs. Shear Rate (ISO 11403)



Veradel® A-201

polyethersulfone

Notes

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

¹ These flammability ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

www.syensqo.com

Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

Neither Syensqo nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this product, related information or its use. Some applications of which Syensqo's products may be proposed to be used are regulated or restricted by applicable laws and regulations or by national or international standards and in some cases by Syensqo's recommendation, including applications of food/feed, water treatment, medical, pharmaceuticals, and personal care. Only products designated as part of the Solviva® family of biomaterials may be considered as candidates for use in implantable medical devices. The user alone must finally determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The information and the products are for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right.

All trademarks and registered trademarks are property of the companies that comprise the Syensqo or their respective owners.

© 2024 2023 Syensqo. All rights reserved.

