

Veradel® A-301

Polyethersulfone
Solvay Specialty Polymers

Message:

Veradel® A-301 is a medium melt flow grade of polyethersulfone (PESU). It is transparent and offers high heat deflection temperatures, excellent toughness and dimensional stability and resistance to steam, boiling water and mineral acids. Other desirable properties include thermal stability, creep resistance and inherent flame resistance.

Veradel® A-301 is suggested for general purpose injection molding. It is FDA compliant and therefore approved for direct food contact.

A low flow grade is available as Veradel® A-201. It can be processed by either extrusion or injection molding.

This grade was formerly marketed as Radel® A PESU

Natural: Veradel® A-301 NT

General Information	
UL YellowCard	E36098-628757
Features	Acid Resistant
	Flame Retardant
	Food Contact Acceptable
	General Purpose
	Good Adhesion
	Good Chemical Resistance
	Good Creep Resistance
	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, Unspecified Rating		
RoHS Compliance	RoHS Compliant		
Appearance	Transparent - Slight Yellow		
Forms	Pellets		
Processing Method	Compounding		
	Injection Molding		
Multi-Point Data	Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.37	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (380°C/2.16 kg)	30	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
Mechanical	Nominal 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	Nominal Value	Unit	Test Method
Notched Izod Impact	53	J/m	ASTM D256
Thermal	Nominal 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	Nominal 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	Nominal Value	Unit	Test Method
Flame Rating ¹ (1.50 mm)	V-0		UL 94
Injection	Nominal Value	Unit	Test Method
Drying Temperature	175	°C	
Drying Time	2.5	hr	

Processing (Melt) Temp	345 to 385	°C
Mold Temperature	149	°C
Screw Compression Ratio	2.2:1.0	

NOTE

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

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