NORYL™ SE1X resin

Polyphenylene Ether + PS

SABIC Innovative Plastics

Message:

PPO+PS. Improved productivity and reliability. Nonchlorinated, nonbrominated flame retardant. 244F HDT.

General Information			
UL YellowCard	E45587-100107136	E207780-100107147	
Additive	Flame retardancy		
Features	Chlorine Free		
	Bromine-free		
	Flame retardancy		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.10	g/cm³	ASTM D792
Molding Shrinkage			Internal method
Flow: 3.20mm	0.50 - 0.70	%	Internal method
Transverse flow [1]	0.50 - 0.70	%	Internal method
Water Absorption (24 hr)	0.060	%	ASTM D570
Outdoor Suitability	f1		UL 746C
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2]			ASTM D638
Yield	67.6	MPa	ASTM D638
Fracture	53.1	MPa	ASTM D638
Tensile Elongation [3]			ASTM D638
Yield	8.1	%	ASTM D638
Fracture	20	%	ASTM D638
Flexural Modulus [4] (100 mm Span)	2500	MPa	ASTM D790
Flexural Strength [5] (Yield, 100 mm Span)	102	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			ASTM D256
-30°C	110	J/m	ASTM D256
23°C	210	J/m	ASTM D256
Instrumented Dart Impact			ASTM D3763
-30°C, Energy at Peak Load	32.5	J	ASTM D3763
23°C, Energy at Peak Load	51.5	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 6.40mm	127	°C	ASTM D648

1.8 MPa, unannealed, 6.40mm	118	°C	ASTM D648
RTI Elec	110	°C	UL 746
RTI Imp	105	°C	UL 746
RTI	110	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	ASTM D257
Volume Resistivity	2.3E+16	ohms·cm	ASTM D257
Dielectric Strength (3.20 mm, in Oil)	18	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
50 Hz	2.52		ASTM D150
60 Hz	2.52		ASTM D150
1 MHz	2.46		ASTM D150
Dissipation Factor			ASTM D150
50 Hz	3.4E-3		ASTM D150
60 Hz	3.4E-3		ASTM D150
1 MHz	2.1E-3		ASTM D150
Arc Resistance [6]	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 1		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 4		UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.47 mm	V-1		UL 94
5.99 mm	V-0		UL 94
Radiant Panel Listing (UL)	RP100		
Injection	**Nominal Value**	**Unit**	
Drying Temperature	104 - 110	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	30 - 70	%	
Rear Temperature	249 - 299	°C	
Middle Temperature	260 - 304	°C	
Front Temperature	271 - 310	°C	
Nozzle Temperature	282 - 310	°C	
Processing (Melt) Temp	282 - 310	°C	
Mold Temperature	76.7 - 104	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	20 - 100	rpm	
NOTE			
1.	Tensile Bar		
2.	Type 1, 50mm/min		
3.	Type 1, 50mm/min		

4.	2.6 mm/min
5.	2.6 mm/min
6.	Tungsten electrode

Recommended distributors for this material

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