ULTEM™ SILTEM-STM1500 resin

Polyether Imide

SABIC Innovative Plastics Europe

Message:

SILTEM STM1500 is a flexible siloxane-polyetherimide copolymer for cable and wire coatings. RoHS compliant.

General Information			
Features	Copolymer Good Flexibility		
Uses	Wire & Cable Applications		
RoHS Compliance	RoHS Compliant		
Processing Method	Profile Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.18	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (320°C/2.16 kg)	8.00	cm³/10min	ISO 1133
Molding Shrinkage - Flow [1]	1.2 to 1.4	%	Internal Method
Water Absorption (Saturation, 23°C)	0.12	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	590	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	20.0	MPa	
Break	25.0	MPa	
Tensile Strain			ISO 527-2/50
Yield	15	%	
Break	110	%	
Flexural Modulus [2]	475	MPa	ISO 178
Flexural Stress [3]			ISO 178
-- [4]	18.0	MPa	
-- [5]	20.0	MPa	
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	60.0	mg	Internal Method
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength [6]			ISO 180/1A
-30°C	15	kJ/m²	
23°C	25	kJ/m²	
Unnotched Izod Impact Strength [7]			ISO 180/1U
-30°C	No Break		
23°C	No Break		
Thermal	**Nominal Value**	**Unit**	**Test Method**

Vicat Softening Temperature			
--	75.0	°C	ISO 306/B50
--	78.0	°C	ISO 306/B120
Ball Pressure Test (75°C)	Pass		IEC 60695-10-2
CLTE			ISO 11359-2
Flow : 23 to 80°C	1.1E-4	cm/cm/°C	
Transverse : 23 to 80°C	9.0E-5	cm/cm/°C	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	4.7E+14	ohms·cm	IEC 60093
Electric Strength (3.20 mm, in Oil)	19	kV/mm	IEC 60243-1
Relative Permittivity (100 Hz)	3.00		IEC 60250
Dissipation Factor (100 Hz)	9.1E-3		IEC 60250
Comparative Tracking Index			IEC 60112
--	175	V	
Solution B	100	V	
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.60 mm, Testing by SABIC)	V-1		UL 94
Glow Wire Flammability Index (3.20 mm)	960	°C	IEC 60695-2-12
Oxygen Index	48	%	ISO 4589-2
Extrusion	**Nominal Value**	**Unit**	
Drying Temperature	105 to 110	°C	
Drying Time	5.0 to 7.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 to 100	°C	
Cylinder Zone 1 Temp.	280 to 290	°C	
Cylinder Zone 2 Temp.	300 to 310	°C	
Cylinder Zone 3 Temp.	310 to 320	°C	
Cylinder Zone 4 Temp.	310 to 325	°C	
Adapter Temperature	315 to 325	°C	
Melt Temperature	285 to 320	°C	
Die Temperature	300 to 320	°C	
Calibration Temp, First	60.0 to 80.0	°C	
NOTE			
1.	Tensile Bar		
2.	2.0 mm/min		
3.	2.0 mm/min		
4.	Break		
5.	Yield		
6.	80*10*4		
7.	80*10*4		

Recommended distributors for this material

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