

**Product Texts**

SILTEM™ STM1600 resin is a flexible polyetherimide(PEI)-siloxane copolymer designed for wire and cable applications. It offers a halogen free (according VDE 0472) flame retardant solution that also offers low smoke emission and toxicity. It is an amber colored transparent material that can be selfcolored and easily processed on conventional equipment. The material may also have a fit in flexible profiles or injection molded parts.

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ASTM Data</b>			
Melt Flow Index, MFI	8.6	g/10min	ASTM D 1238
Temperature	295	°C	-
Load	6.6	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	1380	MPa	ISO 527
Yield stress	42	MPa	ISO 527
Yield strain	10	%	ISO 527
Stress at break	41	MPa	ISO 527
Strain at break	50	%	ISO 527
Flexural modulus	1250	MPa	ISO 178
Izod notched impact strength, +23°C, 4mm	36	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	25	kJ/m <sup>2</sup>	ISO 180/1A
<b>ASTM Data</b>			
Shore D Hardness	72	-	ASTM D 2240
Taber Abrasion Resistance	50	mg/1000 cycles	ASTM D 1044

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 0.45 MPa	144	°C	ISO 75-1/-2
Vicat softening temperature, 120°C/h 50N	167	°C	ISO 306

Electrical properties	Value	Unit	Test Standard
<b>ASTM Data</b>			
Dielectric Strength, Short Time	16.6	kV/mm	ASTM D 149
Dissipation Factor, 1 MHz	0.0055	-	ASTM D 150
Dielectric Constant, 1 MHz	3.02	-	ASTM D 150
Surface Resistivity	1E15	Ohm	ASTM D 257
Volume Resistivity	>1E15	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Water absorption	0.58	%	Sim. to ISO 62
Density	1190	kg/m <sup>3</sup>	ISO 1183
Density	1190	kg/m <sup>3</sup>	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	105	°C	-
Pre-drying - Time	4 - 6	h	-
Processing humidity	≤0.02	%	-
Melt temperature	310 - 320	°C	-
Mold temperature	105 - 115	°C	-
Zone 1	310 - 320	°C	-
Zone 2	310 - 320	°C	-
Zone 3	310 - 320	°C	-
Screw speed	50 - 100	rpm	-
Back pressure	0.3 - 0.7	MPa	-

**Characteristics**

**Processing**

Injection Molding

**Special Characteristics**

Flame retardant, Transparent

**Additives**

Flame retarding agent

**Regional Availability**

Europe