STYRON™ 2678 MED

General Purpose Polystyrene Resin

Trinseo

Message:

STYRON™ 2678 MED is a general purpose polystyrene with high flow and good toughness, designed for injection molding applications. It is compliant with ISO 10993 (biological Evaluation of Medical Devices) and is suitable for use in approved medical applications.
Applications:
Injection moulded medical applications (such as device enclosures, packaging items, etc.)
Thin-walled containers
Complies with:
ISO 10993
Europe EU-Directive 2002/72/EC by Europe REGULATION (EC) 10/2011
U.S. FDA 21 CFR 177.1640
Consult the regulations for complete details.

General Information	
Features	High liquidity Good toughness
Uses	Medical Device Housings Thin wall parts Container General Medical/nursing supplies Medical packaging
Agency Ratings	FDA 21 CFR 177.1640 ISO 10993 2 European 2002/72/EC Europe No 10/2011
Forms	Particle
Processing Method	Injection molding

Physical	Nominal Value	Unit	Test Method
Density			
--	1.05	g/cm³	ISO 1183
--	1050	kg/m³	ISO 1183 [1]
Apparent Density	0.60	g/cm³	ISO 60
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	11	g/10 min	ISO 1133
Melt volume-flow rate (200°C/5.0 kg)	11.0	cm³/10min	ISO 1133 [2]
Water Absorption			ISO 62 [3]
Saturation	0.0	%	ISO 62
Balance	0.0	%	ISO 62

Viscosity Number	91.0	cm^3/g	ISO 307, 1157, 1628 [4]
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	105		ISO 2039-2
Ball Indentation Hardness	150	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	3300	MPa	ISO 527-2 [5]
Tensile Stress			
Yield	43.0	MPa	ISO 527-2/5
Yield	42.0	MPa	ISO 527-2 [6]
Tensile Strain			
Yield	2.0	%	ISO 527-2 [7]
Fracture	2.0	%	ISO 527-2/5
Tensile Elongation at Break	2.0	%	ISO 527-2 [8]
Flexural Modulus	3500	MPa	ISO 178
Flexural Stress	80.0	MPa	ISO 178
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, annealed	86.0	°C	ISO 75-2/B
0.45 MPa	82.0	°C	ISO 75-2 [9]
1.8 MPa, annealed	82.0	°C	ISO 75-2/A
1.8 MPa	71.0	°C	ISO 75-2 [10]
Vicat Softening Temperature			
--	93.0	°C	ISO 306/A120
--	86.0	°C	ISO 306/B50
50°C/h, B (50N)	86.0	°C	ISO 306 [11]
Linear expansion coefficient			ISO 11359-2 [12]
Flow	8.0E-5	cm/cm/°C	ISO 11359-2
Lateral	8.0E-5	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+13	ohms	IEC 60093 [13]
Volume Resistivity	> 1.0E+15	ohms·m	IEC 60093 [14]
Electric strength	140	kV/mm	IEC 60243-1 [15]
Relative Permittivity			IEC 60250 [16]
100 Hz	2.50		IEC 60250
1 MHz	2.50		IEC 60250
Dissipation Factor			
1 MHz	6.0E-5		ASTM D150, IEC 60250 [17]
100 Hz	9.0E-5		IEC 60250 [18]
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating [19] (1.6 mm)	HB		UL 94
Burning Behav. at 1.6mm nom. thickn. (1.60 mm, UL)	HB		ISO 1210 [20]

NOTE	
1.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
2.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
3.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
4.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
5.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
6.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
7.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
8.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
9.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
10.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
11.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
12.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
13.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
14.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
15.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
16.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
17.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
18.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
19.	This rating is not intended to reflect the danger caused by this or any other material under actual fire conditions.
20.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???

Recommended distributors for this material

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