

Generic PEI

Polyether Imide

Generic

Message:

This data represents typical values that have been calculated from all products classified as: Generic PEI
This information is provided for comparative purposes only.

General Information			
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.26 - 1.37	g/cm³	ASTM D792
23°C	1.27 - 1.30	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (337°C/6.6 kg)	8.1 - 19	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (360°C/5.0 kg)	7.00 - 56.7	cm³/10min	ISO 1133
Molding Shrinkage			
Flow: 23°C	0.49 - 0.64	%	ASTM D955
Transverse flow: 23°C	0.59 - 0.61	%	ASTM D955
23°C	0.59 - 0.61	%	ISO 294-4
Water Absorption			
23°C, 24 hr	0.25 - 0.27	%	ASTM D570
23°C, 24 hr	0.29 - 0.30	%	ISO 62
Saturated, 23°C	1.2 - 1.8	%	ISO 62
Equilibrium, 23°C	1.2 - 1.3	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.20 - 0.72	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (23°C)	109 - 110		ASTM D785
Ball Indentation Hardness	140 - 141	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	2660 - 3780	MPa	ASTM D638
23°C	2780 - 3510	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	94.2 - 112	MPa	ASTM D638
Yield, 23°C	92.5 - 113	MPa	ISO 527-2
Fracture, 23°C	73.8 - 108	MPa	ASTM D638
Fracture, 23°C	77.2 - 118	MPa	ISO 527-2
23°C	1.70 - 112	MPa	ASTM D638
Tensile Elongation			
Yield, 23°C	4.9 - 7.8	%	ASTM D638
Yield, 23°C	5.8 - 8.6	%	ISO 527-2

Fracture, 23°C	1.4 - 70	%	ASTM D638
Fracture, 23°C	1.9 - 80	%	ISO 527-2
Flexural Modulus			
23°C	2650 - 3560	MPa	ASTM D790
23°C	2700 - 3340	MPa	ISO 178
Flexural Strength			
23°C	115 - 177	MPa	ASTM D790
23°C	106 - 166	MPa	ISO 178
Yield, 23°C	135 - 174	MPa	ASTM D790
Fracture, 23°C	141 - 160	MPa	ASTM D790
Compressive Modulus	46.0 - 3390	MPa	ASTM D695
Compressive Strength (23°C)	0.700 - 156	MPa	ASTM D695
Coefficient of Friction	0.23 - 0.30		ASTM D1894
Taber Abrasion Resistance (23°C)	9.25 - 10.7	mg	ASTM D1044
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	2.7 - 11	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	0.70 - 110	kJ/m ²	ISO 179
Notched Izod Impact			
23°C	20 - 74	J/m	ASTM D256
23°C	3.7 - 6.3	kJ/m ²	ISO 180
Unnotched Izod Impact			
23°C	1300 - 1400	J/m	ASTM D256
23°C	59 - 200	kJ/m ²	ISO 180
Reverse Notch Izod Impact (23°C)	2200	J/m	ASTM D256
Instrumented Dart Impact (23°C)	24.8 - 43.5	J	ASTM D3763
Dart Drop Impact (23°C)	22.9 - 36.6	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, not annealed	204 - 237	°C	ASTM D648
0.45 MPa, not annealed	194 - 210	°C	ISO 75-2/B
1.8 MPa, not annealed	196 - 230	°C	ASTM D648
1.8 MPa, not annealed	184 - 228	°C	ISO 75-2/A
Continuous Use Temperature	170 - 171	°C	ASTM D794
Glass Transition Temperature	194 - 233	°C	DSC
Vicat Softening Temperature			
--	218 - 242	°C	ASTM D1525
--	209 - 242	°C	ISO 306
Linear thermal expansion coefficient			
Flow	5.4E-5 - 5.6E-5	cm/cm/°C	ASTM D696
Flow	5.0E-5 - 5.6E-5	cm/cm/°C	ASTM E831
Flow	4.0E-5 - 6.7E-5	cm/cm/°C	ISO 11359-2
Lateral	5.0E-5 - 5.5E-5	cm/cm/°C	ASTM E831

Lateral	4.9E-5 - 5.6E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity			
23°C	0.22 - 0.23	W/m/K	ASTM C177
23°C	0.21 - 0.26	W/m/K	ISO 8302
RTI Elec	169 - 171	°C	UL 746
RTI Imp	169 - 171	°C	UL 746
RTI	169 - 171	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity			
--	1.0E+2 - 4.0E+15	ohms	ASTM D257
--	5.1E+5 - 1.7E+15	ohms	IEC 60093
Volume Resistivity			
23°C	10 - 1.0E+17	ohms·cm	ASTM D257
23°C	5.1E+5 - 3.3E+15	ohms·cm	IEC 60093
Dielectric Strength			
23°C	14 - 34	kV/mm	ASTM D149
23°C	16 - 33	kV/mm	IEC 60243-1
Dielectric Constant			
23°C	3.15 - 3.43		ASTM D150
23°C	2.90		IEC 60250
Dissipation Factor			
23°C	1.0E-3 - 7.6E-3		ASTM D150
23°C	5.0E-4 - 0.025		IEC 60250
Comparative Tracking Index	100 - 175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Oxygen Index			
--	44 - 48	%	ASTM D2863
--	45 - 47	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	134 - 150	°C	
Drying Time	5.0 - 5.1	hr	
Drying Time, Maximum	24	hr	
Hopper Temperature	89.5 - 100	°C	
Rear Temperature	338 - 372	°C	
Middle Temperature	364 - 383	°C	
Front Temperature	370 - 395	°C	
Nozzle Temperature	370 - 388	°C	
Processing (Melt) Temp	373 - 393	°C	
Mold Temperature	148 - 150	°C	
Injection Pressure	103 - 104	MPa	
Back Pressure	0.506 - 0.521	MPa	
Screw Speed	55 - 56	rpm	

Vent Depth	0.051	mm
Injection instructions		
This data represents typical values that have been calculated from all products classified as: Generic PEI This information is provided for comparative purposes only.		
Extrusion	Nominal Value	Unit
Drying Temperature	120 - 144	°C
Drying Time	5.0 - 5.1	hr
Suggested Max Moisture	0.015 - 0.020	%
Hopper Temperature	89.8 - 90.0	°C
Cylinder Zone 1 Temp.	270 - 336	°C
Cylinder Zone 2 Temp.	288 - 343	°C
Cylinder Zone 3 Temp.	298 - 343	°C
Cylinder Zone 4 Temp.	303 - 343	°C
Adapter Temperature	290 - 343	°C
Melt Temperature	295 - 324	°C
Die Temperature	285 - 342	°C
Calibration Temp, First	144 - 155	°C
Extrusion instructions		

This data represents typical values that have been calculated from all products classified as: Generic PEI This information is provided for comparative purposes only.

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

