LG Chem

KEYFLEX BT-1172D >TPC-ET<

IMDS ID : 58472494

Properties	Value	Unit	Standard
Mechanical properties			
Tensile Stress - 5% Strain	15.6	MPa	ISO 527-1/-2
Tensile Stress - 10% Strain	21.3	MPa	ISO 527-1/-2
Tensile Stress - 50% Strain		MPa	ISO 527-1/-2
Tensile Stress (at break)	53	MPa	ISO 527-1/-2
Tensile Strain (at break)	430	%	ISO 527-1/-2
Flexual Modulus	540	MPa	ISO 178
Hardness, Durometer - Shore D, 15s	66		ISO 868
Hardness, Durometer - Shore D, Maximum	72		ISO 868
Izod Impact, notched, 80 × 10 × 4, -40℃	5.0	kJ / ㎡	ISO 180/1A
Izod Impact, notched, 80 × 10 × 4, +23℃	32	kJ / ㎡	ISO 180/1A
Charpy Impact, notched, 80 × 10 × 4, -40℃	4.6	kJ / ㎡	ISO 179/1eA
Charpy Impact, notched, 80 × 10 × 4, +23℃	29.1	kJ / ㎡	ISO 179/1eA
Tear Strength (Method B, unnicked)	257	kN / m	ISO 34
Thermal properties			
Melt volume-flow rate	14	cm³ / 10 min	ISO 1133
Temperature / Load - 2.16 kg	240	°C	ISO 1133
Temp. of deflection under load (0.45 MPa)	110	°C	ISO 75-1/-2
Melting Temperature (at peak)	218	°C	ISO 11357-1/-3
Glass transition Temperature	25	°C	ISO 11357-1/-3
Vicat softening temperature (50°C / h, 10 N)	205	°C	ISO 306
Vicat softening temperature (50°C / h, 50 N)	130	°C	ISO 306
Electrical properties			
Surface resistivity	> E12	Ohm	IEC 60093
Volume resistivity	> E12	Ohm × m	IEC 60093
Relative permittivity (1 MHz)	3.5	-	IEC 60250
Relative permittivity (700 MHz)	1.3	-	IEC 60250
Dissipation factor (1 MHz)	300	E-4	IEC 60250
Dissipation factor (700 MHz)	560	E-4	IEC 60250
Electric strength, Short Time, 1 mm	26	kV / mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112
Other properties			
Density	1,245	kg / m³	ISO 1183
Humidity absorption - Equilibrium 50% RH	0.2	%	Sim. to ISO 62
Water absorption - Immersion, 24 h	0.3	%	Sim. to ISO 62
Water absorption - Saturation, immersed	0.6	%	Sim. to ISO 62
Mold Shrinkage (normal)	1.6	%	ISO 2577, 294-4
Mold Shrinkage (parallel)	1.7	%	ISO 2577, 294-4
Test specimen production			
Injection Molding, melt temperature	240	°C	ISO 294
mold temperature - range	40 ~ 60	°C	ISO 10724
mold temperature - optimum	50	°C	ISO 10724
Flammability			
Flammability Classification	HB	-	UL94
Oxygen Index	23	-	ISO 4589

Injection Molding Guideline

Conditions		Unit	Value
Preliminary Drying Temperature		℃	90 ~ 110
Preliminary Drying Time		hour	3 ~ 4
Cylinder Temperature	Rear	℃	225 ~ 235
	Middle	℃	235 ~ 245
	Front	℃	235 ~ 245

1) The above is a table of standard processing conditions and subject to change dependent upon shapes of injection molds.

Drying

If the resin has an excessively high moisture content, this can result in surface defects, i.e.silver streaks, and impaired properties of molded parts. To ensure optimum part performance and prevent surface defects, Keyflex BT resins must be dried prior to processing, and moisture level should be maintained less than 0.02%. A dehumidifying hopper dryer is highly recommended. The hopper dryer should be preheated to the suggested drying temperature before the pellets are loaded in.

Holdind Time / Pressure

Volume shrinkage takes place when the molded part cools in the mold. Holding pressure serves to offset the volume shrinkage. Holding pressure should be maintained until the gate has “frozen”. The required holding pressure time can be determined by checking the weight of the molded part.

■ Please contact Tech Center for any questions or requirements of detail information about LG prooducts.