

Keyflex® BT 1040D

Thermoplastic Copolyester Elastomer

LG Chem Ltd.

Message:

Description

General Purpose, Medium Modulus

Applications

Antenna Cover, Injection Parts for Leisure & Sports, etc.

General Information		
UL YellowCard	E67171-463886	E248280-100040718
Features	General Purpose	
	Medium Rigidity	
Uses	Sporting Goods	
Processing Method	Extrusion	
	Injection Molding	

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.13	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/2.16 kg)	20	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.60 to 1.0	%	ASTM D955
Water Absorption (23°C, 24 hr)	0.70	%	ASTM D570

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A	92		
Shore D	40		

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹ (Break, 2.00 mm)	24.5	MPa	ASTM D638
Tensile Elongation ² (Break, 2.00 mm)	900	%	ASTM D638
Flexural Modulus ³ (6.40 mm)	78.5	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-40°C, 6.40 mm	No Break		
23°C, 6.40 mm	No Break		

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed, 6.40 mm)	60.0	°C	ASTM D648
Peak Melting Temperature	178	°C	ASTM D3418

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity			

--	> 1.0E+15	ohms·cm	ASTM D257
23°C	> 1.0E+13	ohms·cm	IEC 60093
Dielectric Strength			
1.00 mm	26	kV/mm	ASTM D149
23°C, 1.00 mm	26	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI) ⁴	600	V	UL 746
Comparative Tracking Index (Solution A)	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm	HB		
3.00 mm	HB		
Injection	Nominal Value	Unit	
Drying Temperature	80.0 to 90.0	°C	
Drying Time	3.0 to 4.0	hr	
Suggested Max Moisture	0.010	%	
Rear Temperature	180 to 200	°C	
Middle Temperature	190 to 210	°C	
Front Temperature	200 to 220	°C	
Nozzle Temperature	200 to 220	°C	
Processing (Melt) Temp	180 to 220	°C	
Mold Temperature	10.0 to 35.0	°C	
Extrusion	Nominal Value	Unit	
Drying Temperature	80.0 to 90.0	°C	
Drying Time	3.0 to 4.0	hr	
Suggested Max Moisture	0.010	%	
Cylinder Zone 1 Temp.	180 to 200	°C	
Cylinder Zone 2 Temp.	190 to 210	°C	
Cylinder Zone 3 Temp.	190 to 210	°C	
Cylinder Zone 4 Temp.	190 to 210	°C	
Adapter Temperature	190 to 210	°C	
Melt Temperature	180 to 220	°C	
Die Temperature	190 to 210	°C	
NOTE			
1.	50 mm/min		
2.	50 mm/min		
3.	15 mm/min		
4.	Solution A		

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