SolutionPartner

LG Chem

KEYFLEX BT 2140D

Extrusion Molding, TPC-ET

Description

Specialty, Low Modulus

Application

Films, Sheets, Hoses, Tubes, etc.

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.14
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	
Melt Flow Rate	230℃/2.16kg	ASTM D1238	g/10min	5
Water Absorption	23℃, 24hrs	ASTM D570	%	0.6
Mechanical				
Tensile Strength, 2mm		ASTM D638		
@ Yield	50mm/min		kg/cm^2	
@ Break	50mm/min		kg/cm^2	350
Tensile Elongation, 2mm		ASTM D638		
@ Yield	50mm/min		%	
@ Break	50mm/min		%	1,000
Flexural Strength, 6.4mm	15mm/min	ASTM D790	kg/cm^2	
Flexural Modulus, 6.4mm	15mm/min	ASTM D790	kg/cm^2	800
Tear Strength @ Break	50mm/min	ASTM D624	kg/cm	
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	No break
	-40℃		kg·cm/cm	No break
Shore Hardness	Shore D	ASTM D2240	-	43
Shore Hardness	Shore A	ASTM D2240	-	95
Thermal				
Melt Temperature @ Peak		ASTM D3418	℃	205
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	4.6kg		℃	70
Electrical				
Comparative Tracking Index(CTI)	Solution A	IEC 60112	Volts	
Surface Resistivity		IEC 60093	Ohm	
Volume Resistivity	23℃	ASTM D257	Ohm·m	
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm	
Dielectric Constant (10^6 Hz)	23℃	ASTM D150	sec	

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.
Values given should not be interpreted as specification and not be used for part or tool design.
All properties, except melt flow rate are measured on injection molulded specimens and after 48 hours storage at 23℃, 50% relative humidty.

Updated : 25-Jun-14

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Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	
Drying Time		hrs	
Maximum Moisture Content		%	
Melt Temperature		℃	
Cylinder Temperature	Rear	℃	
	Middle	℃	
	Front	℃	
Nozzle Temperature		℃	
Mold Temperature		℃	
Back Pressure		kg/cm^2	
Screw Speed		rpm	

Note) Back Pressure & Screw Speed are only mentioned as general guidelines.
These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.

Processing Guide (Extrusion Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	80 ~ 90
Drying Time		hrs	3 ~ 4
Maximum Moisture Content		%	0.01
Melt Temperature		℃	200 ~ 240
Barrel Temperature	Zone 1	℃	200 ~ 220
	Zone 2	℃	210 ~ 230
	Zone 3	℃	210 ~ 230
	Zone 4	℃	210 ~ 230
Adapter Temperature		℃	210 ~ 230
Die Temperature		℃	200 ~ 220

Note) Recommend initial lower temperatures settings to avoid material degradation/hang-up in die & purge material from extruder prior to shutdown.

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