

Telcar® TL-1000-92-UV

Thermoplastic Elastomer

Teknor Apex Company

Message:

Telcar®TL-1000-92-UV is a thermoplastic elastomer (TPE) material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. The processing method is extrusion or injection molding.

Typical application areas include:

Automotive Industry
engineering/industrial accessories

General Information			
Uses	Blow molding applications		
	Washer		
	Weather-resistant sealing strip		
	Application in Automobile Field		
	Car interior parts		
	Automotive exterior parts		
	Car exterior decoration		
	General		
Appearance	Translucent		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.918	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	2.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow			ASTM D955
180°C, 30 minutes	1.3	%	ASTM D955
24 hours	1.1	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 10 sec)	42		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus	290	MPa	ASTM D790
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ¹			ASTM D412
100% strain	8.41	MPa	ASTM D412
300% strain	8.55	MPa	ASTM D412
Tensile Strength			ASTM D412
Yield ²	10.3	MPa	ASTM D412

Yield ³	7.58	MPa	ASTM D412
Tensile Elongation			ASTM D412
Yield ⁴	16	%	ASTM D412
Fracture ⁵	550	%	ASTM D412
Fracture ⁶	140	%	ASTM D412
Tear Strength ⁷	364	kN/m	ASTM D624
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (-40°C)	No Break		ASTM D256
Dart Drop Impact (-30°C)	33.9	J	ASTM D3029
Tensile Impact Strength	471	kJ/m ²	ASTM D1822
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air			ASTM D573
--	6.0	%	ASTM D573
110°C, 1008 hr	10	%	ASTM D573
121°C, 1008 hr	7.0	%	ASTM D573
Change in Ultimate Elongation in Air			ASTM D573
110°C, 1008 hr	-67	%	ASTM D573
121°C, 1008 hr	-63	%	ASTM D573
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	62.5	°C	ASTM D648
1.8 MPa, not annealed	40.7	°C	ASTM D648
Glass Transition Temperature	-55.9	°C	ASTM E1356
Linear thermal expansion coefficient			ASTM D696
Flow: -30 to 30°C	1.2E-4	cm/cm/°C	ASTM D696
Lateral: -30 to 30°C	1.2E-4	cm/cm/°C	ASTM D696
Flammability	Nominal Value	Unit	Test Method
Burning Rate	30	mm/min	ISO 3795
Additional Information			
装有测量仪表的屈服落镖冲击能量,-40°C,9000 英寸/分钟,韧性破坏:200 英寸-磅 装有测量仪表的断裂落镖冲击能量,-40°C,9000 英寸/分钟,韧性破坏:350英寸-磅 雾化,Kaake Buchler,3小时,100°C:92撕裂强度,ASTM D1004,C型铸:364 磅/英寸 热老化性能伊佐德冲击,1000小时,120°C:无断裂拉伸冲击强度,ASTM D1822:>>224 英尺-磅/平方英寸可燃性燃烧速率,FMVSS 302,最大100,30.2毫米/分钟:合格可燃性,燃烧速率,FMVSS 302,最大100,1.2英寸/分钟:合格			
Injection	Nominal Value	Unit	
Rear Temperature	171 - 193	°C	
Middle Temperature	177 - 199	°C	
Front Temperature	182 - 204	°C	
Nozzle Temperature	188 - 210	°C	
Processing (Melt) Temp	188 - 210	°C	
Mold Temperature	25.0 - 65.6	°C	
Injection Pressure	1.38 - 6.89	MPa	
Injection Rate	Moderate-Fast		
Back Pressure	0.172 - 0.345	MPa	

Screw Speed	50 - 100	rpm
Cushion	3.81 - 25.4	mm
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	166 - 188	°C
Cylinder Zone 2 Temp.	171 - 193	°C
Cylinder Zone 3 Temp.	177 - 199	°C
Cylinder Zone 5 Temp.	182 - 204	°C
Die Temperature	190 - 210	°C

Extrusion instructions

螺杆转速30 - 100 rpm

NOTE

- | | |
|----|-------------------|
| 1. | 51 mm/min |
| 2. | 51 mm/min |
| 3. | Type 1, 510mm/min |
| 4. | Type 1, 510mm/min |
| 5. | 51 mm/min |
| 6. | 510 mm/min |
| 7. | C mould |

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