

Telcar® TL-1445U

Thermoplastic Elastomer

Teknor Apex Company

Message:

Telcar TL-1445U is a general purpose thermoplastic elastomer designed for the industrial market. Telcar TL-1445U is UV stable and is suitable for injection molding and extrusion.

General Information	
Features	Low Specific Gravity
	Sunlight Resistant
	Low density
	smoothness
	Light stabilization
	Low liquidity
	Fill
	Medium hardness
	UV absorption
Uses	Weather-resistant sealing strip
	General
Appearance	Natural color
Forms	Particle
Processing Method	Extrusion
	Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.978	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.0	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 second, injection molding	66		ASTM D2240
Shore A, 5 seconds, injection molding	64		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
Transverse flow: 100% strain ¹	2.50	MPa	ASTM D412
Flow: 100% strain ²	4.44	MPa	ASTM D412
Transverse flow: 300% strain ³	3.79	MPa	ASTM D412
Tensile Strength ⁴			ASTM D412
Transverse flow: Fracture	11.5	MPa	ASTM D412

Flow: Fracture	5.15	MPa	ASTM D412
Tensile Elongation ⁵			ASTM D412
Transverse flow: Fracture	690	%	ASTM D412
Flow: Fracture	240	%	ASTM D412
Tear Strength ⁶			ASTM D624
Transverse flow	39.2	kN/m	ASTM D624
Flow	29.8	kN/m	ASTM D624
Compression Set ⁷			ASTM D395B
23°C, 22 hr	20	%	ASTM D395B
70°C, 22 hr	41	%	ASTM D395B

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

Injection instructions

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

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

Screw Speed: 30 to 100 rpm

NOTE

1. Mouth die C, 510mm/min
2. Mouth die C, 510mm/min
3. C mold, 510mm/min
4. C mold, 510mm/min
5. Mouth die C, 510mm/min
6. C mold, 510mm/min
7. Type 1

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