



Telcar® TL-4001-E

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Telcar TL-4001-E is a general purpose thermoplastic elastomer designed for the industrial market, including weatherstripping. Telcar TL-4001-E is a medium hardness, medium density, UV stable grade suitable for injection molding and extrusion.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Filled • Good Colorability • Good Mold Release	• Good Moldability • Good Processability • Light Stabilized • Low Flow	• Medium Density • Medium Hardness • Slip
Uses	• General Purpose	• Industrial Applications	• Weatherstripping
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Opaque	• White
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.04		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	4.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ²			ASTM D412
Across Flow : 100% Strain	425	psi	
Flow : 100% Strain	793	psi	
Tensile Stress - Across Flow ² (300% Strain)	550	psi	ASTM D412
Tensile Strength ²			ASTM D412
Across Flow : Break	1410	psi	
Flow : Break	864	psi	
Tensile Elongation ²			ASTM D412
Across Flow : Break	1800	%	
Flow : Break	230	%	
Tear Strength ²			ASTM D624
Across Flow	247	lbf/in	
Flow	229	lbf/in	
Compression Set ³			ASTM D395B
73°F, 22 hr	35	%	
158°F, 22 hr	65	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	72		
Shore A, 5 sec, Injection Molded	70		

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Processing Information		
Injection	Nominal Value	Unit
Rear Temperature	340 to 380	°F
Middle Temperature	350 to 390	°F
Front Temperature	360 to 400	°F
Nozzle Temperature	370 to 410	°F
Processing (Melt) Temp	370 to 410	°F
Mold Temperature	77 to 150	°F
Injection Pressure	200 to 1000	psi
Injection Rate	Moderate-Fast	
Back Pressure	25.0 to 50.0	psi
Screw Speed	50 to 100	rpm
Cushion	0.150 to 1.00	in
Injection Notes		
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.	330 to 370	°F
Cylinder Zone 2 Temp.	340 to 380	°F
Cylinder Zone 3 Temp.	350 to 390	°F
Cylinder Zone 4 Temp.	350 to 390	°F
Cylinder Zone 5 Temp.	360 to 400	°F
Die Temperature	374 to 410	°F
Extrusion Notes		
Screw Speed: 30 to 100 rpm		

Notes

¹ Typical properties: these are not to be construed as specifications.

² Die C, 20 in/min

³ Type 1