



Telcar® TL-1996E

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Telcar(R) TL-1996E is a high hardness, low density general purpose thermoplastic elastomer designed for various applications in the consumer and industrial segments. Telcar TL-1996E is suitable for injection molding and extrusion.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Good Colorability • Good Mold Release • Good Moldability	• Good Processability • High Hardness • High Melt Stability • High Melt Strength	• Low Density • Low Flow • Low Specific Gravity • Without Fillers
Uses	• General Purpose	• Industrial Applications	• Profiles
RoHS Compliance	• RoHS Compliant		
Appearance	• Black	• Colors Available	• Natural Color
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.885	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	0.50	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ISO 37
Across Flow : 100% Strain	891	psi	
Flow : 100% Strain	1290	psi	
Tensile Stress			ISO 37
Across Flow : Break	2130	psi	
Flow : Break	1350	psi	
Tensile Elongation			ISO 37
Across Flow : Break	710	%	
Flow : Break	290	%	
Tear Strength			ISO 34-1
Across Flow	411	lbf/in	
Flow	451	lbf/in	
Compression Set			ISO 815
72°F, 23 hr	41	%	
158°F, 22 hr	85	%	
194°F, 70 hr	96	%	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore D, 1 sec	47		
Shore D, 5 sec	41		

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Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (257°F, 168 hr)	-11	%	ISO 188
Change in Tensile Strain at Break in Air 257°F, 168 hr	2.4	%	ISO 188
Change in Shore Hardness in Air Shore D, 257°F, 168 hr	2.4		ISO 188
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec ⁻¹)	828	Pa·s	ASTM D3835

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	380 to 440	°F
Middle Temperature	380 to 440	°F
Front Temperature	380 to 440	°F
Nozzle Temperature	380 to 440	°F
Processing (Melt) Temp	380 to 440	°F
Mold Temperature	60 to 90	°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
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.	360 to 400	°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.