



Telcar® TELC-1000-105

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Telcar TELC 1000-105 is a general purpose thermoplastic elastomer designed for the industrial market. Telcar TELC 1000-105 is a high hardness, low density grade suitable for both injection molding and extrusion.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bondability • Good Melt Strength • Good Mold Release • Good Moldability	• High Hardness • High Viscosity • Low Density • Low Flow	• Low Specific Gravity • Without Fillers
Uses	• General Purpose	• Industrial Applications	
Agency Ratings	• UL 94		
RoHS Compliance	• RoHS Compliant		
UL File Number	• QMFZ2.E54709		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.892		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	2.0	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus	95000	psi	ASTM D790
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
Across Flow : 100% Strain	1600	psi	
Flow : 100% Strain	1900	psi	
Tensile Strength			ASTM D412
Across Flow : Break	1940	psi	
Flow : Break	2310	psi	
Tensile Elongation			ASTM D412
Across Flow : Break	290	%	
Flow : Break	230	%	
Tear Strength - Across Flow ²	691	lbf/in	ASTM D624
Compression Set			ASTM D395
73°F, 22 hr	54	%	
158°F, 22 hr	74	%	
194°F, 70 hr	93	%	
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 1 sec)	47		ASTM D2240

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Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-67.0	°F	ASTM D746
RTI Elec	122	°F	UL 746B
RTI Imp	122	°F	UL 746B
RTI Str	122	°F	UL 746B
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air			ISO 188
230°F, 1008 hr	3.4	%	
257°F, 168 hr	1.8	%	
Change in Tensile Strain at Break in Air			ISO 188
230°F, 1008 hr	-34	%	
257°F, 168 hr	-19	%	
Change in Shore Hardness in Air			ISO 188
Shore D, 230°F, 1008 hr	3.2		
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.030 in, All Colors)	HB		UL 94
Fill Analysis	Nominal Value	Unit	Test Method
Apparent Viscosity (392°F, 206 sec ⁻¹)	375	Pa·s	ASTM D3835

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).

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Extrusion	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	2.0	hr
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 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