+135-3858-6433 (GuangDong)
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TEKNOR APEX

Telcar® TL-3050

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Telcar TL-3050 is a high performance thermoplastic elastomer designed for electrical applications requiring flexibility over a wide temperature range. Telcar TL-3050 is a high hardness, low density, lubricated grade that is RoHS compliant. This grade is suitable for both injection molding and extrusion.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Bromine Free • Good Colorability • Good Melt Strength • Good Mold Release • Good Moldability • Good Processability	• Good Processing Stability • Good Tear Strength • Halogen Free • High Hardness • High Melt Stability • High Tensile Strength	• Light Stabilized • Low Density • Low Flow • Low Specific Gravity • Lubricated • Without Fillers
Uses	• Insulation • Jacketing	• Wire & Cable Applications • Wire Jacketing	
Agency Ratings	• UL 1581 [1]		
RoHS Compliance	• RoHS Compliant		
UL File Number	• QMTT2.E73402		
Appearance	• Colors Available	• Natural Color	• Translucent
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties [2]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.880		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	1.5	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [3]			ASTM D412
Across Flow : 100% Strain	1330	psi	
Flow : 100% Strain	1780	psi	
Tensile Stress [3]			ASTM D412
Across Flow : 300% Strain	1340	psi	
Flow : 300% Strain	1850	psi	
Tensile Strength [3]			ASTM D412
Across Flow : Break	1850	psi	
Flow : Break	2040	psi	
Tensile Elongation [3]			ASTM D412
Across Flow : Break	670	%	
Flow : Break	480	%	
Tear Strength [3]			ASTM D624
Across Flow	510	lbf/in	
Flow	608	lbf/in	
Compression Set [4]			ASTM D395B
73°F, 22 hr	71	%	
158°F, 22 hr	93	%	

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore D, 1 sec, Injection Molded	41		
Shore D, 5 sec, Injection Molded	39		

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	440 to 480	°F
Middle Temperature	440 to 480	°F
Front Temperature	440 to 480	°F
Nozzle Temperature	440 to 480	°F
Processing (Melt) Temp	440 to 480	°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.	420 to 460	°F
Cylinder Zone 2 Temp.	420 to 460	°F
Cylinder Zone 3 Temp.	420 to 460	°F
Cylinder Zone 4 Temp.	420 to 460	°F
Cylinder Zone 5 Temp.	420 to 460	°F
Die Temperature	420 to 460	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

[1] - approved for 75C wet location use

[2] Typical properties: these are not to be construed as specifications.

[3] Die C, 20 in/min

[4] Type 1