



Telcar® TL-2721C NAT

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Telcar TL-2721C is a high performance, non halogen, flame retardant thermoplastic elastomer designed for electrical applications requiring flexibility over a wide temperature range. Telcar TL-2721C is a high hardness, high density, RoHS compliant 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	• Chemical Resistant • Flame Retardant • Good Moldability • Good Processability	• Halogen Free • High Density • High Hardness • Low Flow	• Resilient • Sunlight Resistant • UV Resistant
Uses	• Electrical/Electronic Applications • Wire & Cable Applications		
RoHS Compliance	• RoHS Compliant		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.29		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.20	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (100% Strain)	840	psi	ASTM D412
Tensile Stress ² (300% Strain)	916	psi	ASTM D412
Tensile Strength (Break)	1340	psi	ASTM D412
Tensile Elongation (Break)	600	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore D, 1 sec	50		
Shore D, 5 sec	46		
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-41.8	°F	ASTM D746
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (277°F, 168 hr)	-3.4	%	ASTM D573
Change in Ultimate Elongation in Air (277°F, 168 hr)	-0.70	%	ASTM D573
Change in Tensile Strength 140°F, 168 hr, in IRM 902 Oil	-60	%	ASTM D471
Change in Ultimate Elongation 140°F, 168 hr, in IRM 902 Oil	-52	%	ASTM D471
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (122°F)	4.5E+15	ohms·cm	ASTM D257
Dielectric Strength (23°F, 0.0290 in)	930	V/mil	ASTM D149
Dielectric Constant (73°F, 1 kHz)	2.71		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Oxygen Index	24	%	ASTM D2863

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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
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 20 in/min