

Telcar® TL-8730R

Thermoplastic Elastomer

Teknor Apex Company

Message:

Telcar TL-8730R is a high performance, flame retardant thermoplastic elastomer designed for electrical applications requiring flexibility over a wide temperture range. Telcar TL-8730R is a high durometer grade that is UV stablized and RoHS compliant. This grade is UL listed and is suitable for both injection molding and extrusion.

General Information		
UL YellowCard	E54709-100128960	E142591-100745028
Features	High elasticity	
	High tensile strength	
	Good UV resistance	
	Good heat aging resistance	
	Good flexibility	
	Good coloring	
	Medium liquidity	
	Halogenated	
	Ozone resistance	
	Good weather resistance	
	Sunlight resistance, 720 hours	
	General	
	Extended tensile rate	
	Flame retardancy	
Uses	Cable sheath	
	Electrical/Electronic Applications	
	Electrical components	
	Wire and cable applications	
	Wire sheath	
	Insulating material	
	General	
Agency Ratings	UL 1581	
	UL 94	
RoHS Compliance	RoHS compliance	
UL File Number	QMTT2.73402	
	QMFZ2.E54709	
Appearance	Opacity	

Forms	Particle		
Processing Method	Extrusion		
	Injection molding		

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.24	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	16	g/10 min	ASTM D1238

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	86		ASTM D2240

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ¹			ASTM D412
100% strain, 0.508mm ²	4.48	MPa	ASTM D412
300% strain, 0.508mm ³	6.21	MPa	ASTM D412
Tensile Strength (fracture, 0.508mm)	12.4	MPa	ASTM D412
Tensile Elongation (fracture, 0.508mm)	550	%	ASTM D412

Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (136°C, 168 hr)	10	%	ASTM D573
Change in Ultimate Elongation in Air (136°C, 168 hr)	-4.0	%	ASTM D573
Change in Tensile Strength (60°C, 168 hr, in IRM 902 Oil)	-1.0	%	ASTM D471
Change in Ultimate Elongation (60°C, 168 hr, in IRM 902 Oil)	3.0	%	ASTM D471

Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature	105	°C	UL 1581
Brittleness Temperature	< -60.0	°C	ASTM D746
RTI Elec	50.0	°C	UL 746
RTI	50.0	°C	UL 746

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms · cm	ASTM D257
Dielectric Strength	39	kV/mm	ASTM D149
Dielectric Constant (1 kHz)	2.40		ASTM D150

Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-0		UL 94
Oxygen Index	26	%	ASTM D2863

Injection	Nominal Value	Unit
Rear Temperature	171 - 193	°C
Middle Temperature	177 - 199	°C
Front Temperature	182 - 204	°C
Nozzle Temperature	188 - 210	°C
Processing (Melt) Temp	188 - 210	°C
Mold Temperature	25.0 - 65.6	°C

Injection Pressure	1.38 - 6.89	MPa
Injection Rate	Moderate-Fast	
Back Pressure	0.172 - 0.345	MPa
Screw Speed	50 - 100	rpm
Cushion	3.81 - 25.4	mm
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	166 - 188	°C
Cylinder Zone 2 Temp.	171 - 193	°C
Cylinder Zone 3 Temp.	177 - 199	°C
Cylinder Zone 5 Temp.	182 - 204	°C
Die Temperature	190 - 210	°C

Extrusion instructions

螺杆转速30 - 100 rpm

NOTE

1. die cut from extruded tapes
2. Mouth die C, 510mm/min
3. C mold, 510mm/min

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