



Telcar® TL-8730R AP

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Telcar TL-8730R AP is a high performance, flame retardant thermoplastic elastomer designed for electrical applications requiring flexibility over a wide temperature range. Telcar TL-8730R AP is a high durometer grade that is UV stabilized. 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	• Flame Retardant • General Purpose • Good Colorability • Good Flexibility • Good Weather Resistance • Halogenated	• Heat Aging Resistant • High Density • High Elasticity • High Elongation • High Hardness • High Specific Gravity	• High Tensile Strength • Medium Flow • Ozone Resistant • Sunlight Resistant (720 hours) • UV Resistant
Uses	• Cable Jacketing • Electrical Parts • Electrical/Electronic Applications	• General Purpose • Insulation • Rubber Replacement	• Wire & Cable Applications • Wire Jacketing
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.24		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	16	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ^{2, 3} (100% Strain, 0.0200 in)	650	psi	ASTM D412
Tensile Stress ^{2, 3} (300% Strain, 0.0200 in)	900	psi	ASTM D412
Tensile Strength ^{2, 3} (Break, 0.0200 in)	1800	psi	ASTM D412
Tensile Elongation ^{2, 3} (Break, 0.0200 in)	550	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	86		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature	221	°F	UL 1581
Brittleness Temperature	< -76.0	°F	ASTM D746
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (277°F, 168 hr)	10	%	ASTM D573
Change in Ultimate Elongation in Air (277°F, 168 hr)	-4.0	%	ASTM D573
Change in Tensile Strength 140°F, 168 hr, in IRM 902 Oil	-1.0	%	ASTM D471
Change in Ultimate Elongation 140°F, 168 hr, in IRM 902 Oil	3.0	%	ASTM D471
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	980	V/mil	ASTM D149
Dielectric Constant (1 kHz)	2.40		ASTM D150

Telcar® TL-8730R AP

Teknor Apex Company - Thermoplastic Elastomer

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in, All Colors		V-2	
0.06 in, NT, WT, BK		V-0	
Oxygen Index	26	%	ASTM D2863

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 Die C, 20 in/min
- ³ die cut from extruded tapes