

Telcar® TL-8730A

Teknor Apex Company - Thermoplastic Elastomer

Saturday, September 14, 2024

General Information

Product Description

Telcar TL-8730A is a high performance flame retardant thermoplastic elastomer designed for electrical applications requiring flexibility over a wide temperature range. Telcar TL-8730A is a high density, higher hardness, UL 94 V-0 grade with good UV stability and 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	• Brominated • Filled • Flame Retardant • Good Colorability • Good Electrical Properties	• Halogenated • Heat Aging Resistant • High Density • High Elongation • High Hardness	• High Tensile Strength • Low Temperature Flexibility • Medium Flow • Sunlight Resistant (720 hours) • UV Resistant
Uses	• Appliance Wire Insulation • Appliance Wire Jacketing • Cable Jacketing • Connectors • Flame Retardant Insulation	• Flame Retardant Jacketing • Flexible Cord Jacketing • Industrial Cable Insulation • Industrial Cable Jacketing • Terminal Cable Jacketing	• Underground Power Cable • Wire & Cable Applications • Wire Jacketing
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.25	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	15	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Break)	12.4	MPa	ASTM D412
Tensile Elongation (Break)	600	%	ASTM D412
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	86		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-55.0	°C	ASTM D746
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air (158°C, 168 hr)	-2.0	%	ASTM D573
Change in Ultimate Elongation in Air (158°C, 168 hr)	-13	%	ASTM D573
Change in Tensile Strength 60°C, 168 hr, in IRM 902 Oil	-7.0	%	ASTM D471
Change in Ultimate Elongation 60°C, 168 hr, in IRM 902 Oil	-3.0	%	ASTM D471
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength	39	kV/mm	ASTM D149
Dielectric Constant (1 kHz)	2.40		ASTM D150
Dissipation Factor (25°C, 1 MHz)	4.0E-3		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.5 mm, NT)	V-0		UL 94
Oxygen Index	28	%	ASTM D2863

Revision Date: 11/16/2018

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Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	171 to 193	°C
Middle Temperature	177 to 199	°C
Front Temperature	182 to 204	°C
Nozzle Temperature	188 to 210	°C
Processing (Melt) Temp	188 to 210	°C
Mold Temperature	25 to 66	°C
Injection Pressure	1.38 to 6.89	MPa
Injection Rate	Moderate-Fast	
Back Pressure	0.172 to 0.345	MPa
Screw Speed	50 to 100	rpm
Cushion	3.81 to 25.4	mm

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	166 to 188	°C
Cylinder Zone 2 Temp.	171 to 193	°C
Cylinder Zone 3 Temp.	177 to 199	°C
Cylinder Zone 4 Temp.	177 to 199	°C
Cylinder Zone 5 Temp.	182 to 204	°C
Die Temperature	190 to 210	°C

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

¹ Typical properties: these are not to be construed as specifications.

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