Elexar® EL-1934E

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Elexar EL-1934E is a high performance UL V-0 flame retardant thermoplastic elastomer designed for electrical applications requiring flexibility over a wide temperature range. Elexar EL-1934E is a high hardness, high density, low flow grade that is UV stabilized. This UL listed grade is easily colorable 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	• Chemical Resistant • Flame Retardant • General Purpose • Good Adhesion • Good Colorability	• Good Flexibility • Good Toughness • Halogenated • High Density • High Hardness	• High Specific Gravity • Low Flow • Slip • Sunlight Resistant (720 hours) • UV Resistant
Uses	• Appliance Wire Insulation • Appliance Wire Jacketing • Cable Jacketing • Connectors • Flexible Cord Jacketing	• General Purpose • Industrial Applications • Industrial Cable Insulation • Rubber Replacement • Terminal Cable Jacketing	• Underground Power Cable • Wire & Cable Applications • Wire Jacketing
Agency Ratings	• UL 1581	• UL 94	
UL File Number	• QMTT2.E73402	• QMFZ2.E54709	
Appearance	• Colors Available	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.31		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	7.0	g/10 min	ASTM D1238
Water Absorption (Equilibrium)	< 1.0	%	ASTM D570
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (100% Strain)	457	psi	ASTM D412
Tensile Stress (300% Strain)	632	psi	ASTM D412
Tensile Strength (Break)	1320	psi	ASTM D412
Tensile Elongation (Break)	620	%	ASTM D412
Impact	**Nominal Value**	**Unit**	**Test Method**
Unnotched Izod Impact	No Break		ASTM D4812
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A, 1 sec	81		
Shore A, 5 sec	80		
Thermal	**Nominal Value**	**Unit**	**Test Method**
Continuous Use Temperature	221	°F	UL 1581
Brittleness Temperature	-51.5	°F	ASTM D746
RTI Elec	122	°F	UL 746B
RTI Imp	122	°F	UL 746B
RTI Str	122	°F	UL 746B

Revision Date: 11/16/2018

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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)	2.4	%	ASTM D573
Change in Tensile Strength			ASTM D471
140°F, 168 hr, in IRM 902 Oil	-5.7	%	
Change in Ultimate Elongation			ASTM D471
140°F, 168 hr, in IRM 902 Oil	-3.4	%	

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (122°F)	4.1E+14	ohms·cm	ASTM D257
Dielectric Strength	1100	V/mil	ASTM D149
Dielectric Constant (1 kHz)	2.47		ASTM D150
Dissipation Factor	3.0E-3		ASTM D150

Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.05 to 0.06 in, All Colors)	V-0		UL 94
Oxygen Index	30	%	ASTM D2863

Additional Information

UL-1581: Meets 720 hr sunlight resistance.

This material is not recommended for direct contact with fPVC.
No adverse effects are expected when in contact with XLPE and PUR

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	390 to 420	°F
Middle Temperature	415 to 430	°F
Front Temperature	430 to 440	°F
Nozzle Temperature	430 to 445	°F
Processing (Melt) Temp	430 to 445	°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

Injection Notes

Drying is not necessary. However, if moisture is a problem, dry the pellets for 2 to 4 hours at 150°F (65°C).

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Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	380 to 410	°F
Cylinder Zone 2 Temp.	390 to 420	°F
Cylinder Zone 3 Temp.	415 to 430	°F
Cylinder Zone 4 Temp.	415 to 430	°F
Cylinder Zone 5 Temp.	430 to 440	°F
Die Temperature	430 to 445	°F

Extrusion Notes

Screw Speed: 30 to 100 rpm

Notes

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

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