Elexar® EL-3954-80

Teknor Apex Company - Thermoplastic Elastomer

Wednesday, April 1, 2026

General Information

Product Description

Elexar EL-3954-80 is a high performance thermoplastic elastomer designed for the electrical/wire & cable market. Elexar EL-3954-80 is a lubricated, high density grade suitable for injection molding.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Filled • Good Mold Release • Good Moldability • Halogen Free	• High Density • High Hardness • High Specific Gravity • Lubricated	• Medium Flow • Slip
Uses	• Connectors • Grommets	• Strain Reliefs • Wire & Cable Applications	
Agency Ratings	• UL 94		
RoHS Compliance	• RoHS Compliant		
UL File Number	• QMFZ2.E54709		
Appearance	• Colors Available	• Opaque	
Forms	• Pellets		
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.18		ASTM D792
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	13	g/10 min	ASTM D1238
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress [2]			ASTM D412
Across Flow : 100% Strain	410	psi	
Flow : 100% Strain	517	psi	
Tensile Stress [2]			ASTM D412
Across Flow : 300% Strain	568	psi	
Flow : 300% Strain	682	psi	
Tensile Strength [2]			ASTM D412
Across Flow : Break	1690	psi	
Flow : Break [3]	1900	psi	
Flow : Break	1290	psi	
Tensile Elongation [2]			ASTM D412
Across Flow : Break	740	%	
Flow : Break [3]	600	%	
Flow : Break	640	%	
Tear Strength [2]			ASTM D624
Across Flow	230	lbf/in	
Flow	217	lbf/in	
Compression Set [4]			ASTM D395B
73°F, 22 hr	29	%	
158°F, 22 hr	63	%	

Revision Date: 12/4/2018

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Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 1 sec, Injection Molded	78		
Shore A, 5 sec, Injection Molded	76		

Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -76.0	°F	ASTM D746
RTI Elec	194	°F	UL 746B
RTI Str	194	°F	UL 746B

Electrical	Nominal Value	Unit	Test Method
Dielectric Strength	1100	V/mil	ASTM D149

Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in, All Colors)	HB		UL 94

Legal Statement

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Processing Information

Injection	Nominal Value	Unit
Rear Temperature	360 to 400	°F
Middle Temperature	360 to 400	°F
Front Temperature	360 to 400	°F
Nozzle Temperature	360 to 400	°F
Processing (Melt) Temp	360 to 400	°F
Mold Temperature	60 to 90	°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).

Notes

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

[2] Die C, 20 in/min

[3] Extruded tape

[4] Type 1

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