



Elexar® EL-3954-90 (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Elexar EL-3954-90 is a high performance thermoplastic elastomer designed for the electrical/wire & cable market. Elexar EL-3954-90 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 • Low Flow	• Lubricated • 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	• Natural Color	• Opaque
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.18		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	1.4	g/10 min	ASTM D1238
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus	26000	psi	ASTM D790
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	530	psi	ASTM D412
Tensile Strength (Break)	2000	psi	ASTM D412
Tensile Elongation (Break)	610	%	ASTM D412
Tear Strength	240	lbf/in	ASTM D624
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	90		ASTM D2240
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

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Injection	Nominal Value	Unit
Rear Temperature	420 to 460	°F
Middle Temperature	420 to 460	°F
Front Temperature	420 to 460	°F
Nozzle Temperature	420 to 460	°F
Processing (Melt) Temp	420 to 460	°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.