



Elexar® EL-8313R (PRELIMINARY DATA)

Teknor Apex Company - Thermoplastic Elastomer

General Information

Product Description

Elexar EL-8313R is a high performance, flame retardant thermoplastic elastomer designed for electrical applications requiring use over a wide temperature range. Elexar EL-8313R is a high durometer grade that 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 • Good Colorability • Halogenated	• High Density • High Hardness • High Specific Gravity	• High Tensile Strength • High Viscosity • Low Flow
Uses	• Cable Jacketing • Electrical/Electronic Applications	• Industrial Applications • Insulation	• Jacketing • Wire & Cable Applications
RoHS Compliance	• RoHS Compliant		
Appearance	• Colors Available	• Opaque	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.27		ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	3.0	g/10 min	ASTM D1238
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (200% Strain)	2000	psi	ASTM D412
Tensile Strength (Break)	3250	psi	ASTM D412
Tensile Elongation (Break)	420	%	ASTM D412
Tear Strength ²	570	lbf/in	ASTM D624
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore D, 1 sec	62		
Shore D, 5 sec	60		

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

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Injection	Nominal Value	Unit
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).

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.	430 to 441	°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.

² Die C