

Arnitel® EL630
Envalior - Thermoplastic Copolyester Elastomer
General Information
Product Description

Injection Molding, Food Contact Quality

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Features	• Food Contact Acceptable
Automotive Specifications	• GM GMW15702-021691-TPC-EE
Processing Method	• Injection Molding
Resin ID	• TPC-ET

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.24	g/cm ³	ISO 1183
Apparent (Bulk) Density	0.77	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	28	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	2.0	%	
Flow	1.8	%	
Water Absorption (Saturation, 73°F)	0.60	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	43500	psi	ISO 527-1
Tensile Stress			ISO 527-2
Break	5080	psi	
Across Flow : Break	6240	psi	
Tensile Stress			ISO 527-2
5.0% Strain	1740	psi	
10% Strain	2470	psi	
50% Strain	2610	psi	
100% Strain	2610	psi	
300% Strain	2900	psi	
Tensile Strain			ISO 527-2
Break	> 300	%	
Across Flow : Break	740	%	
Nominal Tensile Strain at Break	490	%	ISO 527-2
Flexural Modulus	47900	psi	ISO 178
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ²			ISO 34-1
Across Flow	931	lbf/in	
Flow	919	lbf/in	
Compression Set (158°F)	43	%	ISO 815
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	5.7	ft-lb/in ²	
73°F	No Break		
Charpy Unnotched Impact Strength			ISO 179/1eU



-22°F	No Break	
73°F	No Break	
Notched Izod Impact Strength (73°F)	No Break	ISO 180/1A
Tensile Impact Strength ³ (73°F)	111 ft·lb/in ²	ISO 8256/1
Hardness	Nominal Value Unit	Test Method
Shore Hardness (Shore D, 3 sec)	59	ISO 868
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	239 °F	ISO 75-2/B
Glass Transition Temperature ⁴	-76.0 °F	ISO 11357-2
Vicat Softening Temperature	257 °F	ISO 306/B50
Melting Temperature ⁴	414 °F	ISO 11357-3
CLTE - Flow	1.0E-4 in/in/°F	ISO 11359-2
CLTE - Transverse	1.0E-4 in/in/°F	ISO 11359-2
Electrical	Nominal Value Unit	Test Method
Volume Resistivity	1.0E+12 ohms·m	IEC 62631-3-1
Electric Strength	560 V/mil	IEC 60243-1
Relative Permittivity		IEC 62631-2-1
100 Hz	3.80	
1 MHz	3.40	
Dissipation Factor		IEC 62631-2-1
100 Hz	0.011	
1 MHz	0.034	
Comparative Tracking Index	600 V	IEC 60112
Flammability	Nominal Value Unit	Test Method
Flame Rating (0.06 in)	HB	UL 94
Flammability Classification (0.06 in)	HB	IEC 60695-11-10, -20

Notes

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

² Method B, Angle

³ notched

⁴ 10°C/min

