PolySource

Arnitel® ECO L700
Envalior - *Thermoplastic Copolyester Elastomer*

General Information

Product Description

22% Renewable Content, Injection Molding, Food Contact Quality

Design Challenge
Haptics & Aesthetics | Stain and scratch resistance
Life cycle assessment

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Features	• Food Contact Acceptable	• Renewable Resource Content	
Processing Method	• Injection Molding		
Resin ID	• TPC		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.21	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	50	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.5	%	
Flow	1.3	%	
Water Absorption (24 hr, 73°F)	0.15	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.020	%	ISO 62
Biobased Carbon Content	22	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	49300	psi	ISO 527-1
Tensile Stress (Break)	5220	psi	ISO 527-2
Tensile Stress			ISO 527-2
5.0% Strain	2410	psi	
10% Strain	3180	psi	
50% Strain	2940	psi	
100% Strain	2870	psi	
Tensile Strain (Break)	> 50	%	ISO 527-2
	> 300		
Nominal Tensile Strain at Break	420	%	ISO 527-2

Elastomers	Nominal Value	Unit	Test Method
Tear Strength [2]	982	lbf/in	ISO 34-1
Compression Set (158°F)	39	%	ISO 815

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength (-22°F)	1.6	ft·lb/in²	ISO 180/1A

Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 3 sec)	65		ISO 868

Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature [3]	28.4	°F	ISO 11357-2
Vicat Softening Temperature	203	°F	ISO 306/B50
Melting Temperature [3]	408	°F	ISO 11357-3

Electrical	Nominal Value	Unit	Test Method

Surface Resistivity	> 1.0E+15	ohms	IEC 62631-3-2
Volume Resistivity	> 1.0E+13	ohms·m	IEC 62631-3-1
Electric Strength	510	V/mil	IEC 60243-1
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Sustainability	Bio-based		

Notes

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

[2] Method B, Angle

[3] 10°C/min