

**Arnitel® ECO L460**
*Envalior - Thermoplastic Copolyester Elastomer*
**General Information**
**Product Description**

40% Renewable Content, Injection Molding, Food Contact Quality

Design Challenge

Haptics &amp; Aesthetics | Stain and scratch resistance

Life cycle assessment

**General**

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

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density	1.14	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	39	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	• •	1.5 % 1.5 %	
Flow	• •	1.3 % 1.3 %	
Water Absorption (24 hr, 73°F)	0.14	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.030	%	ISO 62
Biobased Carbon Content	40	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	13100	psi	ISO 527-1
Tensile Stress			ISO 527-2
Break	2470	psi	
Across Flow : Break	3480	psi	
Tensile Stress			ISO 527-2
5.0% Strain	754	psi	
10% Strain	1200	psi	
50% Strain	1600	psi	
100% Strain	1740	psi	
Tensile Strain - Across Flow (Break)	700	%	ISO 527-2
Nominal Tensile Strain at Break	250	%	ISO 527-2
Flexural Modulus	13800	psi	ISO 178
Elastomers	Nominal Value	Unit	Test Method
Tear Strength <sup>2</sup>			ISO 34-1
Across Flow	611	lbf/in	
Flow	605	lbf/in	
Compression Set (158°F)	45	%	ISO 815
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	No Break		ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU



-22°F	No Break	
73°F	No Break	
Notched Izod Impact Strength		ISO 180/1A
-22°F	1.2 ft·lb/in <sup>2</sup>	
73°F	No Break	
<b>Hardness</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Shore Hardness (Shore D, 3 sec)	45	ISO 868
<b>Thermal</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Vicat Softening Temperature	100 °F	ISO 306/B50
Melting Temperature <sup>3</sup>	356 °F	ISO 11357-3
<b>Electrical</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
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
<b>Flammability</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Flame Rating (0.12 in)	HB	UL 94
Flammability Classification		IEC 60695-11-10, -20
0.030 in	HB	
0.12 in	HB	
<b>Additional Information</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Sustainability	Bio-based	

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Method B, Angle

<sup>3</sup> 10°C/min

