Arnitel® ECO M700

Envalior - *Thermoplastic Copolyester Elastomer*

General Information

Product Description

22% Renewable Content, Extrusion Grade, Food Contact Quality

Design Challenge
Haptics & 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	• Extrusion		
Resin ID	• TPC		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.23	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	5.0	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	• 1.8 • 1.8	%	
Flow	• 1.5 • 1.5	%	
Water Absorption (24 hr, 73°F)	0.15	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.010	%	ISO 62
Biobased Carbon Content	22	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	49300	psi	ISO 527-1
Tensile Stress			ISO 527-2
Break	3920	psi	
Across Flow : Break	7110	psi	
Tensile Stress			ISO 527-2
5.0% Strain	2470	psi	
10% Strain	3340	psi	
50% Strain	3770	psi	
100% Strain	3920	psi	
Tensile Strain - Across Flow (Break)	640	%	ISO 527-2
Nominal Tensile Strain at Break	110	%	ISO 527-2
Flexural Modulus	50800	psi	ISO 178

Elastomers	Nominal Value	Unit	Test Method
Tear Strength [2]			ISO 34-1
Across Flow	965	lbf/in	
Flow	1080	lbf/in	
Compression Set (158°F)	40	%	ISO 815

Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	No Break		

73°F	No Break		
Notched Izod Impact Strength (-22°F)	2.3	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	210	°F	ISO 306/B50
Melting Temperature [3]	410	°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