

**Arnitel® CM600-V**
*Envalior - Thermoplastic Copolyester Elastomer*
**General Information**
**Product Description**

Extrusion, Flame Retardant (halogen free)

Design Challenge

Degradation &amp; Stability | Thermo-oxidative stability

Flame Retardancy | Halogen free

**General**

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Features	• Flame Retardant • Halogen Free
Processing Method	• Extrusion • Injection Molding
Resin ID	• TPC-ES FR

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

Physical	Nominal Value	Unit	Test Method
Density	1.32	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	13	cm <sup>3</sup> /10min	ISO 1133
Water Absorption (24 hr, 73°F)	0.18	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	72500	psi	ISO 527-1
Tensile Stress			ISO 527-2
Break	2610	psi	
Across Flow : Break	2470	psi	
Tensile Stress			ISO 527-2
5.0% Strain	2470	psi	
Across Flow : 5.0% Strain	2320	psi	
10% Strain	2900	psi	
Across Flow : 10% Strain	2760	psi	
50% Strain	2610	psi	
Across Flow : 50% Strain	2470	psi	
100% Strain	2470	psi	
Across Flow : 100% Strain	2320	psi	
Tensile Strain - Across Flow (Break)	310	%	ISO 527-2
Nominal Tensile Strain at Break	200	%	ISO 527-2
Elastomers	Nominal Value	Unit	Test Method
Tear Strength <sup>2</sup>			ISO 34-1
Across Flow	748	lbf/in	
Flow	765	lbf/in	
Compression Set			ISO 815
73°F	23	%	
158°F	50	%	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	1.4	ft·lb/in <sup>2</sup>	
73°F	5.2	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU



-22°F	24 ft·lb/in <sup>2</sup>	
73°F	No Break	
Notched Izod Impact Strength		ISO 180/1A
-4°F	1.5 ft·lb/in <sup>2</sup>	
73°F	5.2 ft·lb/in <sup>2</sup>	
<b>Hardness</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Shore Hardness		ISO 868
Shore D, 3 sec	62	
Shore D, 15 sec	62	
<b>Thermal</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Glass Transition Temperature <sup>3</sup>	14.0 °F	ISO 11357-2
Vicat Softening Temperature	185 °F	ISO 306/B50
Melting Temperature <sup>3</sup>	401 °F	ISO 11357-3
CLTE - Flow	6.9E-5 in/in/°F	ISO 11359-2
CLTE - Transverse	6.8E-5 in/in/°F	ISO 11359-2
<b>Electrical</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Volume Resistivity	> 1.0E+13 ohms·m	IEC 62631-3-1
Electric Strength	670 V/mil	IEC 60243-1
Relative Permittivity		IEC 62631-2-1
100 Hz	4.20	
1 MHz	3.70	
Dissipation Factor		IEC 62631-2-1
100 Hz	0.016	
1 MHz	0.039	
Comparative Tracking Index	600 V	IEC 60112
<b>Flammability</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Glow Wire Flammability Index		IEC 60695-2-12
0.031 in	1760 °F	
0.06 in	1650 °F	
Glow Wire Ignition Temperature		IEC 60695-2-13
0.031 in	1520 °F	
0.06 in	1470 °F	

#### 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

