

**Arnitel® CM550-S**
*Envalior - Thermoplastic Copolyester Elastomer*
**General Information**
**Product Description**

57 Shore D, Extrusion, Flame Retardant

**General**

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

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

Physical	Nominal Value	Unit	Test Method
Density	1.31	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	17	cm <sup>3</sup> /10min	ISO 1133
Water Absorption (24 hr, 73°F)	0.26	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.11	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	29000	psi	ISO 527-1
Tensile Stress			ISO 527-2
Break	4060	psi	
Across Flow : Break	4500	psi	
Tensile Stress			ISO 527-2
5.0% Strain	1450	psi	
Across Flow : 5.0% Strain	1390	psi	
10% Strain	2030	psi	
Across Flow : 10% Strain	1890	psi	
50% Strain	2610	psi	
Across Flow : 50% Strain	2320	psi	
100% Strain	2470	psi	
Across Flow : 100% Strain	2180	psi	
Tensile Strain			ISO 527-2
Break	> 300	%	
Across Flow : Break	590	%	
Nominal Tensile Strain at Break	400	%	ISO 527-2
Elastomers	Nominal Value	Unit	Test Method
Tear Strength <sup>2</sup>			ISO 34-1
Across Flow	828	lbf/in	
Flow	914	lbf/in	
Compression Set (158°F)	52	%	ISO 815
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	2.4	ft·lb/in <sup>2</sup>	
73°F	No Break		
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	No Break		
73°F	No Break		
Notched Izod Impact Strength			ISO 180/1A



-22°F		2.6 ft·lb/in <sup>2</sup>	
-4°F		No Break	
<b>Hardness</b>		<b>Nominal Value</b>	<b>Unit</b>
Shore Hardness			ISO 868
Shore D, 3 sec		57	
Shore D, 15 sec		57	
<b>Thermal</b>		<b>Nominal Value</b>	<b>Unit</b>
Glass Transition Temperature <sup>3</sup>		-4.00 °F	ISO 11357-2
Vicat Softening Temperature		160 °F	ISO 306/B50
Melting Temperature <sup>3</sup>		401 °F	ISO 11357-3
<b>Electrical</b>		<b>Nominal Value</b>	<b>Unit</b>
Volume Resistivity		> 1.0E+13	ohms·m
Relative Permittivity			IEC 62631-2-1
100 Hz		4.20	
1 MHz		3.50	
Dissipation Factor			IEC 62631-2-1
100 Hz		0.018	
1 MHz		0.050	

### 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

