

## Covestro Bayblend® T 45 Polycarbonate/ABS Blend

Category : Polymer , Thermoplastic , ABS Polymer , Polycarbonate/ABS Alloy, Unreinforced , Polycarbonate (PC)

### Material Notes:

High impact and notched impact strength, little risk of brittle fracture, high dimensional accuracy, good platable. Information provided by Bayer. As of 1 September 2015, Bayer Material Science was separated from Bayer AG and officially adopted its new name – Covestro.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Covestro-Bayblend-T-45-PolycarbonateABS-Blend.php](http://www.lookpolymers.com/polymer_Covestro-Bayblend-T-45-PolycarbonateABS-Blend.php)

Physical Properties	Metric	English	Comments
Density	1.10 g/cc	0.0397 lb/in <sup>3</sup>	
Water Absorption	0.70 %	0.70 %	Saturation in water
Moisture Absorption at Equilibrium	0.20 %	0.20 %	Equilibrium at 50% RH
Water Absorption at Saturation	0.70 %	0.70 %	
Linear Mold Shrinkage	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	ASTM D955
Melt Flow	12 g/10 min	12 g/10 min	
	@Load 5.00 kg, Temperature 260 °C	@Load 11.0 lb, Temperature 500 °F	
Spiral Flow	61.0 cm	24.0 in	at 254°C melt temp.
	@Thickness 2.50 mm	@Thickness 0.0984 in	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	50.0 MPa	7250 psi	ASTM D638
Tensile Strength, Yield	50.0 MPa	7250 psi	
Elongation at Break	>= 50 %	>= 50 %	Nominal
Elongation at Yield	4.0 %	4.0 %	
Tensile Modulus	2.10 GPa	305 ksi	
Flexural Modulus	2.20 GPa	319 ksi	ASTM D790
Izod Impact, Notched	5.30 J/cm	9.93 ft-lb/in	ASTM D256
	@Thickness 3.20 mm	@Thickness 0.126 in	
Impact Test	30.0 J	22.1 ft-lb	Instrumented Total Impact; 3.2 mm thick, 12.5 mm dart, 75 mm clamp, 6.7 m/s; ASTM D3763
	@Thickness 3.20 mm	@Thickness 0.126 in	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	90.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	50.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	
	@Temperature 20.0 $^{\circ}\text{C}$	@Temperature 68.0 $^{\circ}\text{F}$	
CTE, linear, Transverse to Flow	95.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	52.8 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	
	@Temperature 20.0 $^{\circ}\text{C}$	@Temperature 68.0 $^{\circ}\text{F}$	
Deflection Temperature at 0.46 MPa (66 psi)	110 $^{\circ}\text{C}$	230 $^{\circ}\text{F}$	
Deflection Temperature at 1.8 MPa (264 psi)	100 $^{\circ}\text{C}$	212 $^{\circ}\text{F}$	
Vicat Softening Point	110 $^{\circ}\text{C}$	230 $^{\circ}\text{F}$	
UL RTI, Electrical	60.0 $^{\circ}\text{C}$	140 $^{\circ}\text{F}$	
UL RTI, Mechanical with Impact	60.0 $^{\circ}\text{C}$	140 $^{\circ}\text{F}$	
UL RTI, Mechanical without Impact	60.0 $^{\circ}\text{C}$	140 $^{\circ}\text{F}$	
Flammability, UL94	HB	HB	
	@Thickness 1.60 mm	@Thickness 0.0630 in	
Oxygen Index	21 %	21 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	IEC 112
Surface Resistance	1.00e+14 ohm	1.00e+14 ohm	IEC 93
Dielectric Constant	2.0	2.0	
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	2.9	2.9	
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Dissipation Factor	0.0040	0.0040	
Comparative Tracking Index	0.0070	0.0070	
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	500 V	500 V	

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