

Covestro Bayblend® T65 HI

(PC+ABS)-Blend; Vicat/B 120 temperature = 120 °C; grade with improved low-temperature impact strength and chemical resistance for automotive parts; also suitable for extrusion/extrusion blow molding and electroplating applications

Physical Properties	Metric	English	Comments
Density	1.11 g/cc	0.0401 lb/in ³	ISO 1183-1
Moisture Absorption at Equilibrium	0.20 %	0.20 %	ISO 62, 50% RH
Water Absorption at Saturation	0.70 %	0.70 %	ISO 62
Viscosity	300000 cP @Shear Rate 1000 1/s, Temperature 260 °C	300000 cP @Shear Rate 1000 1/s, Temperature 500 °F	melt viscosity; b.o. ISO 11443-A
Linear Mold Shrinkage, Flow	0.0065 - 0.0085 cm/cm @Thickness 3.00 mm	0.0065 - 0.0085 in/in @Thickness 0.118 in	150x105x3mm; b.o. ISO 2577
Linear Mold Shrinkage, Transverse	0.0065 - 0.0085 cm/cm @Thickness 3.00 mm	0.0065 - 0.0085 in/in @Thickness 0.118 in	150x105x3mm; b.o. ISO 2577
Melt Flow	5.55 g/10 min @Load 5.00 kg, Temperature 260 °C	5.55 g/10 min @Load 11.0 lb, Temperature 500 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	46.0 MPa	6670 psi	50 mm/min; ISO 527-1,-2
Tensile Strength, Yield	48.0 MPa	6960 psi	50 mm/min; ISO 527-1,-2
Elongation at Break	>= 50 %	>= 50 %	50 mm/min; b.o. ISO 527-1,-2
Elongation at Yield	4.5 %	4.5 %	50 mm/min; ISO 527-1,-2
Tensile Modulus	2.00 GPa	290 ksi	1 mm/min; ISO 527-1,-2
Izod Impact, Notched (ISO)	38.0 kJ/m ² @Temperature -30.0 °C	18.1 ft-lb/in ² @Temperature -22.0 °F	ISO 180-A
	48.0 kJ/m ² @Temperature 23.0 °C	22.8 ft-lb/in ² @Temperature 73.4 °F	ISO 180-A
Izod Impact, Unnotched (ISO)	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	ISO 180-U
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 180-U

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	IEC 60093
Surface Resistance	1.00e+16 ohm	1.00e+16 ohm	IEC 60093

Dielectric Constant	2.9 @Frequency 1e+6 Hz	2.9 @Frequency 1e+6 Hz	IEC 60250
	3.0 @Frequency 100 Hz	3.0 @Frequency 100 Hz	IEC 60250
Dielectric Strength	35.0 kV/mm @Thickness 1.00 mm	889 kV/in @Thickness 0.0394 in	IEC 60243-1
Dissipation Factor	0.0025 @Frequency 100 Hz	0.0025 @Frequency 100 Hz	IEC 60250
	0.0085 @Frequency 1e+6 Hz	0.0085 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	275 V	275 V	Solution A; IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	90.0 $\mu\text{m}/\text{m}\cdot\text{C}^{\circ}$ @Temperature 23.0 - 55.0 $^{\circ}\text{C}$	50.0 $\mu\text{in}/\text{in}\cdot\text{F}^{\circ}$ @Temperature 73.4 - 131 $^{\circ}\text{F}$	ISO 11359-1,-2
CTE, linear, Transverse to Flow	95.0 $\mu\text{m}/\text{m}\cdot\text{C}^{\circ}$ @Temperature 23.0 - 55.0 $^{\circ}\text{C}$	52.8 $\mu\text{in}/\text{in}\cdot\text{F}^{\circ}$ @Temperature 73.4 - 131 $^{\circ}\text{F}$	ISO 11359-1,-2
Deflection Temperature at 0.46 MPa (66 psi)	120 $^{\circ}\text{C}$	248 $^{\circ}\text{F}$	ISO 75-1,-2
Deflection Temperature at 1.8 MPa (264 psi)	99.0 $^{\circ}\text{C}$	210 $^{\circ}\text{F}$	ISO 75-1,-2
Vicat Softening Point	118 $^{\circ}\text{C}$ @Load 5.10 kg	244 $^{\circ}\text{F}$ @Load 11.2 lb	50 $^{\circ}\text{C}/\text{h}$; ISO 306
	120 $^{\circ}\text{C}$ @Load 5.10 kg	248 $^{\circ}\text{F}$ @Load 11.2 lb	120 $^{\circ}\text{C}/\text{h}$; ISO 306
Flammability, UL94	HB @Thickness 0.850 mm	HB @Thickness 0.0335 in	

Processing Properties	Metric	English	Comments
Melt Temperature	260 $^{\circ}\text{C}$	500 $^{\circ}\text{F}$	Injection molding; ISO 294
Mold Temperature	80.0 $^{\circ}\text{C}$	176 $^{\circ}\text{F}$	Injection molding; ISO 294
Injection Velocity	240 mm/sec	9.45 in/sec	ISO 294