

Covestro Bayblend® T80 XG

(PC+ABS)-Blend; Vicat/B 120 temperature = 130 °C; excellent flow; optimized surface quality for metallization (steam treatment)
As of 1 September 2015, Bayer MaterialScience was separated from Bayer AG and officially adopted its new name – Covestro.

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 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	190000 cP @Shear Rate 1000 1/s, Temperature 260 °C	190000 cP @Shear Rate 1000 1/s, Temperature 500 °F	melt viscosity; b.o. ISO 11443-A
Linear Mold Shrinkage, Flow	0.0055 - 0.0075 cm/cm @Thickness 3.00 mm	0.0055 - 0.0075 in/in @Thickness 0.118 in	150x105x3mm; b.o. ISO 2577
Linear Mold Shrinkage, Transverse	0.0055 - 0.0075 cm/cm @Thickness 3.00 mm	0.0055 - 0.0075 in/in @Thickness 0.118 in	150x105x3mm; b.o. ISO 2577
Melt Flow	31 g/10 min @Load 5.00 kg, Temperature 260 °C	31 g/10 min @Load 11.0 lb, Temperature 500 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	50.0 MPa	7250 psi	50 mm/min; ISO 527-1,-2
Tensile Strength, Yield	62.0 MPa	8990 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	4.7 %	4.7 %	50 mm/min; ISO 527-1,-2
Tensile Modulus	2.50 GPa	363 ksi	1 mm/min; ISO 527-1,-2
Izod Impact, Notched (ISO)	14.0 kJ/m ² @Temperature -30.0 °C	6.66 ft-lb/in ² @Temperature -22.0 °F	ISO 180-A
	42.0 kJ/m ² @Temperature 23.0 °C	20.0 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

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	IEC 60093
Surface Resistance	1.00e+17 ohm	1.00e+17 ohm	IEC 60093
Dielectric Strength	45.0 kV/mm @Thickness 1.00 mm	1140 kV/in @Thickness 0.0394 in	IEC 60243-1

Comparative Tracking Index	175 V	175 V	Solution A; IEC 60112
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Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	72.0 $\mu\text{m/m}^\circ\text{C}$ @Temperature 23.0 - 55.0 $^\circ\text{C}$	40.0 $\mu\text{in/in}^\circ\text{F}$ @Temperature 73.4 - 131 $^\circ\text{F}$	ISO 11359-1,-2
CTE, linear, Transverse to Flow	72.0 $\mu\text{m/m}^\circ\text{C}$ @Temperature 23.0 - 55.0 $^\circ\text{C}$	40.0 $\mu\text{in/in}^\circ\text{F}$ @Temperature 73.4 - 131 $^\circ\text{F}$	ISO 11359-1,-2
Deflection Temperature at 0.46 MPa (66 psi)	127 $^\circ\text{C}$	261 $^\circ\text{F}$	ISO 75-1,-2

Deflection Temperature at 1.8 MPa (264 psi)	108 $^\circ\text{C}$	226 $^\circ\text{F}$	ISO 75-1,-2
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Vicat Softening Point	128 $^\circ\text{C}$ @Load 5.10 kg	262 $^\circ\text{F}$ @Load 11.2 lb	50 $^\circ\text{C/h}$; ISO 306
	130 $^\circ\text{C}$ @Load 5.10 kg	266 $^\circ\text{F}$ @Load 11.2 lb	120 $^\circ\text{C/h}$; 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