

Covestro Bayblend® T85 XF

(PC+ABS)-Blend; Vicat/B 120 temperature = 130 °C; improved flow compared with T85

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
Moisture Absorption at Equilibrium	0.20 %	0.20 %	ISO 62
Water Absorption at Saturation	0.70 %	0.70 %	ISO 62
Viscosity	250 cP @Shear Rate 1000 1/s, Temperature 260 °C	250 cP @Shear Rate 1000 1/s, Temperature 500 °F	melt; b.o. ISO 11443-A
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm @Thickness 3.00 mm	0.0050 - 0.0070 in/in @Thickness 0.118 in	150x105x3 mm; 260 °C / MT 80 °C; b.o. ISO 2577
Linear Mold Shrinkage, Transverse	0.0050 - 0.0070 cm/cm @Thickness 3.00 mm	0.0050 - 0.0070 in/in @Thickness 0.118 in	150x105x3 mm; 260 °C / MT 80 °C; b.o. ISO 2577
Melt Flow	22 g/10 min @Load 5.00 kg, Temperature 260 °C	22 g/10 min @Load 11.0 lb, Temperature 500 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	50.0 MPa	7250 psi	50 mm/min; ISO 527-1/-2
Tensile Strength, Yield	54.0 MPa	7830 psi	50 mm/min; ISO 527-1/-2
Elongation at Break	>= 50 %	>= 50 %	50 mm/min; ISO 527-1/-2
Elongation at Yield	4.7 %	4.7 %	50 mm/min; ISO 527-1/-2
Tensile Modulus	2.30 GPa	334 ksi	1 mm/min; ISO 527-1/-2
Izod Impact, Notched (ISO)	35.0 kJ/m ² @Temperature -30.0 °C	16.7 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+14 ohm-cm	1.00e+14 ohm-cm	IEC 60093
Surface Resistance	1.00e+16 ohm	1.00e+16 ohm	IEC 60093
Dielectric Constant	3.0 @Frequency 1e+6 Hz	3.0 @Frequency 1e+6 Hz	IEC 60250
	3.1 @Frequency 100 Hz	3.1 @Frequency 100 Hz	IEC 60250
Dielectric Strength	35.0 kV/mm	889 kV/in	1 mm; IEC 60243-1
Dissipation Factor	0.0020 @Frequency 100 Hz	0.0020 @Frequency 100 Hz	IEC 60250

	0.0085 @Frequency 1e+6 Hz	0.0085 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	225 V	225 V	Solution A; IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	75.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @Temperature 23.0 - 55.0 $^\circ\text{C}$	41.7 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @Temperature 73.4 - 131 $^\circ\text{F}$	ISO 11359-1,-2
CTE, linear, Transverse to Flow	80.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ @Temperature 23.0 - 55.0 $^\circ\text{C}$	44.4 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ @Temperature 73.4 - 131 $^\circ\text{F}$	ISO 11359-1,-2
Deflection Temperature at 0.46 MPa (66 psi)	126 $^\circ\text{C}$	259 $^\circ\text{F}$	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	107 $^\circ\text{C}$	225 $^\circ\text{F}$	ISO 75-1/-2
Vicat Softening Point	128 $^\circ\text{C}$ @Load 5.10 kg	262 $^\circ\text{F}$ @Load 11.2 lb	50 $^\circ\text{C}/\text{h}$; ISO 306
	130 $^\circ\text{C}$ @Load 5.10 kg	266 $^\circ\text{F}$ @Load 11.2 lb	120 $^\circ\text{C}/\text{h}$; ISO 306
Flammability, UL94	HB @Thickness 0.900 mm	HB @Thickness 0.0354 in	IEC 60695-11-10

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

Descriptive Properties	
Availability	Asia Pacific Europe Near East/Africa North America South and Central America
Eff. thermal diffusivity (m^2/s)	9.08E-08
Feature	Release agent
Form	Pellets
Process	Injection Molding
UL recognition	UL\h\n