

Covestro Bayblend® T95 MF

(PC+ABS)-Blend; 9 % mineral filled; Vicat/B 120 temperature = 142 °C;; very good heat resistance; reduced coefficient of thermal expansion; tensile modulus = 3350 MPa

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	1.24 g/cc	0.0448 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.20 %	0.20 %	ISO 62
Water Absorption at Saturation	0.60 %	0.60 %	ISO 62
Viscosity	400000 cP @Shear Rate 1000 1/s, Temperature 260 °C	400000 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	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	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	estimated from MVR using room temperature density; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	52.0 MPa	7540 psi	50 mm/min; ISO 527-1/-2
Tensile Strength, Yield	66.0 MPa	9570 psi	50 mm/min; ISO 527-1/-2
Elongation at Break	>= 50 %	>= 50 %	50 mm/min; ISO 527-1/-2
Elongation at Yield	4.6 %	4.6 %	50 mm/min; ISO 527-1/-2
Tensile Modulus	3.35 GPa	486 ksi	1 mm/min; ISO 527-1/-2
Izod Impact, Notched (ISO)	9.00 kJ/m ² @Temperature 23.0 °C	4.28 ft-lb/in ² @Temperature 73.4 °F	ISO 180-A
	9.00 kJ/m ² @Temperature -30.0 °C	4.28 ft-lb/in ² @Temperature -22.0 °F	ISO 180-A
Izod Impact, Unnotched (ISO)	>= 150 kJ/m ² @Temperature 23.0 °C	>= 71.4 ft-lb/in ² @Temperature 73.4 °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	3.0	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
	3.2	3.2	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	35.0 kV/mm	889 kV/in	1 mm; IEC 60243-1
Dissipation Factor	0.0015	0.0015	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.0090	0.0090	IEC 60250
	@Frequency 1e+6 Hz	@Frequency 1e+6 Hz	
Comparative Tracking Index	200 V	200 V	Solution A; IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	55.0 $\mu\text{m}/\text{m}^{\circ}\text{C}$ @Temperature 23.0 - 55.0 $^{\circ}\text{C}$	30.6 $\mu\text{in}/\text{in}^{\circ}\text{F}$ @Temperature 73.4 - 131 $^{\circ}\text{F}$	ISO 11359-1,-2
CTE, linear, Transverse to Flow	65.0 $\mu\text{m}/\text{m}^{\circ}\text{C}$ @Temperature 23.0 - 55.0 $^{\circ}\text{C}$	36.1 $\mu\text{in}/\text{in}^{\circ}\text{F}$ @Temperature 73.4 - 131 $^{\circ}\text{F}$	ISO 11359-1,-2
Deflection Temperature at 0.46 MPa (66 psi)	136 $^{\circ}\text{C}$	277 $^{\circ}\text{F}$	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	124 $^{\circ}\text{C}$	255 $^{\circ}\text{F}$	ISO 75-1/-2
Vicat Softening Point	140 $^{\circ}\text{C}$ @Load 5.10 kg	284 $^{\circ}\text{F}$ @Load 11.2 lb	50 $^{\circ}\text{C}/\text{h}$; ISO 306
	142 $^{\circ}\text{C}$ @Load 5.10 kg	288 $^{\circ}\text{F}$ @Load 11.2 lb	120 $^{\circ}\text{C}/\text{h}$; ISO 306
Flammability, UL94	HB @Thickness 0.850 mm	HB @Thickness 0.0335 in	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