

Covestro Bayblend® T88 GF-30

Rubber modified (PC+SAN) blend; 31 % glass fiber filled; Vicat/B 120 temperature = 134 °C; optimized heat ageing- and UV-stability; very good flow; tensile modulus = 10000 MPa; good heat resistance

| Physical Properties | Metric | English | Comments |
|------------------------------------|--|--|----------------------------------|
| Density | 1.375 g/cc | 0.04968 lb/in ³ | ISO 1183-1 |
| Filler Content | 31 % | 31 % | Glass, Method A; b.o. ISO 3451-1 |
| Moisture Absorption at Equilibrium | 0.10 % | 0.10 % | ISO 62, 50% RH |
| Water Absorption at Saturation | 0.40 % | 0.40 % | ISO 62 |
| Viscosity | 250000 cP @Shear Rate 1000 1/s, Temperature 260 °C | 250000 cP @Shear Rate 1000 1/s, Temperature 500 °F | melt viscosity; b.o. ISO 11443-A |
| Linear Mold Shrinkage, Flow | 0.0015 - 0.0035 cm/cm @Thickness 3.00 mm | 0.0015 - 0.0035 in/in @Thickness 0.118 in | 150x105x3mm; b.o. ISO 2577 |
| Linear Mold Shrinkage, Transverse | 0.0030 - 0.0050 cm/cm @Thickness 3.00 mm | 0.0030 - 0.0050 in/in @Thickness 0.118 in | 150x105x3mm; b.o. ISO 2577 |
| Melt Flow | 15.13 g/10 min @Load 0.510 kg, Temperature 260 °C | 15.13 g/10 min @Load 1.12 lb, Temperature 500 °F | ISO 1133 |

| Mechanical Properties | Metric | English | Comments |
|------------------------------|---|---|------------------------|
| Tensile Strength at Break | 135 MPa | 19600 psi | 5 mm/min; ISO 527-1,-2 |
| Elongation at Break | 2.0 % | 2.0 % | 5 mm/min; ISO 527-1,-2 |
| Tensile Modulus | 10.0 GPa | 1450 ksi | 1 mm/min; ISO 527-1,-2 |
| Izod Impact, Notched (ISO) | 11.0 kJ/m ² @Temperature -30.0 °C | 5.23 ft-lb/in ² @Temperature -22.0 °F | ISO 180-A |
| | 12.0 kJ/m ² @Temperature 23.0 °C | 5.71 ft-lb/in ² @Temperature 73.4 °F | ISO 180-A |
| Izod Impact, Unnotched (ISO) | 40.0 kJ/m ² @Temperature 23.0 °C | 19.0 ft-lb/in ² @Temperature 73.4 °F | ISO 180-U |
| | 40.0 kJ/m ² @Temperature -30.0 °C | 19.0 ft-lb/in ² @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+17 ohm | 1.00e+17 ohm | IEC 60093 |
| Dielectric Constant | 3.4 @Frequency 1e+6 Hz | 3.4 @Frequency 1e+6 Hz | IEC 60250 |

| | | | |
|---------------------|----------------------------------|-----------------------------------|-------------|
| | 3.6 @Frequency 100 Hz | 3.6 @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 | 0.0030 @Frequency 100 Hz | 0.0030 @Frequency 100 Hz | IEC 60250 |
| | 0.0085 @Frequency 1e+6 Hz | 0.0085 @Frequency 1e+6 Hz | IEC 60250 |

Comparative Tracking Index

175 V

175 V

Solution A; IEC 60112

| Thermal Properties | Metric | English | Comments |
|---|---|--|---|
| CTE, linear, Parallel to Flow | 25.0 $\mu\text{m}/\text{m}\cdot\text{C}^\circ$ @Temperature 23.0 - 55.0 $^\circ\text{C}$ | 13.9 $\mu\text{in}/\text{in}\cdot\text{F}^\circ$ @Temperature 73.4 - 131 $^\circ\text{F}$ | ISO 11359-1,-2 |
| CTE, linear, Transverse to Flow | 60.0 $\mu\text{m}/\text{m}\cdot\text{C}^\circ$ @Temperature 23.0 - 55.0 $^\circ\text{C}$ | 33.3 $\mu\text{in}/\text{in}\cdot\text{F}^\circ$ @Temperature 73.4 - 131 $^\circ\text{F}$ | ISO 11359-1,-2 |
| Deflection Temperature at 0.46 MPa (66 psi) | 134 $^\circ\text{C}$ | 273 $^\circ\text{F}$ | ISO 75-1,-2 |
| Deflection Temperature at 1.8 MPa (264 psi) | 126 $^\circ\text{C}$ | 259 $^\circ\text{F}$ | ISO 75-1,-2 |
| Vicat Softening Point | 132 $^\circ\text{C}$ @Load 5.10 kg | 270 $^\circ\text{F}$ @Load 11.2 lb | 50 $^\circ\text{C}/\text{h}$; ISO 306 |
| | 134 $^\circ\text{C}$ @Load 5.10 kg | 273 $^\circ\text{F}$ @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 | 540 mm/sec | 21.3 in/sec | ISO 294 |