

Bayblend® T90 XF

Polycarbonate + ABS

Covestro - Polycarbonates

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Technical Data

Product Description

(PC+ABS)-Blend; Vicat/B 120 temperature = 132°C; good balance of melt flow, impact strength and stress cracking resistance

General

| | | | |
|-----------------|--|-----------------------------|------------------------------------|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Features | • Good Flow | • Good Impact Resistance | • High ESCR (Stress Crack Resist.) |
| RoHS Compliance | • RoHS Compliant | | |

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--|------------------------------|-----------------------------|-------------|
| Density (73°F (23°C)) | 1.14 g/cm ³ | 1.14 g/cm ³ | ISO 1183 |
| Melt Volume-Flow Rate (MVR) (260°C/5.0 kg) | 0.732 in ³ /10min | 12.0 cm ³ /10min | ISO 1133 |
| Molding Shrinkage ² | | | ISO 294-4 |
| Across Flow : 500°F (260°C), 0.0787 in (2.00 mm) | 0.60 to 0.80 % | 0.60 to 0.80 % | |
| Flow : 500°F (260°C), 0.0787 in (2.00 mm) | 0.60 to 0.80 % | 0.60 to 0.80 % | |
| Water Absorption | | | ISO 62 |
| Saturation, 73°F (23°C) | 0.60 % | 0.60 % | |
| Equilibrium, 73°F (23°C), 50% RH | 0.20 % | 0.20 % | |

| Mechanical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-------------------------------|-------------------------|--------------------|--------------|
| Tensile Modulus (73°F (23°C)) | 319000 psi | 2200 MPa | ISO 527-2/1 |
| Tensile Stress | | | ISO 527-2/50 |
| Yield, 73°F (23°C) | 7690 psi | 53.0 MPa | |
| Break, 73°F (23°C) | 8120 psi | 56.0 MPa | |
| Tensile Strain | | | ISO 527-2/50 |
| Yield, 73°F (23°C) | 5.1 % | 5.1 % | |
| Break, 73°F (23°C) | > 50 % | > 50 % | |

| Impact | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--|--------------------------|----------------------|-------------|
| Notched Izod Impact Strength | | | ISO 180/A |
| -22°F (-30°C) | 21 ft·lb/in ² | 45 kJ/m ² | |
| 73°F (23°C) | 26 ft·lb/in ² | 55 kJ/m ² | |
| Unnotched Izod Impact Strength | | | ISO 180 |
| -22°F (-30°C) | No Break | No Break | |
| 73°F (23°C) | No Break | No Break | |
| Multi-Axial Instrumented Impact Energy | | | ISO 6603-2 |
| -22°F (-30°C) | 36.9 ft·lb | 50.0 J | |
| 73°F (23°C) | 32.5 ft·lb | 44.0 J | |

| Thermal | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---------------------------------------|-------------------------|--------------------|--------------|
| Heat Deflection Temperature | | | |
| 66 psi (0.45 MPa), Unannealed | 264 °F | 129 °C | ISO 75-2/B |
| 264 psi (1.8 MPa), Unannealed | 225 °F | 107 °C | ISO 75-2/A |
| Vicat Softening Temperature | | | |
| -- | 266 °F | 130 °C | ISO 306/B50 |
| -- | 270 °F | 132 °C | ISO 306/B120 |
| CLTE | | | ISO 11359-2 |
| Flow : 73 to 131°F (23 to 55°C) | 3.9E-5 in/in/°F | 7.0E-5 cm/cm/°C | |
| Transverse : 73 to 131°F (23 to 55°C) | 4.2E-5 in/in/°F | 7.5E-5 cm/cm/°C | |



| Electrical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|-------------------------|--------------------|-------------|
| Surface Resistivity | 1.0E+16 ohms | 1.0E+16 ohms | IEC 60093 |
| Volume Resistivity (73°F (23°C)) | 1.0E+16 ohms·cm | 1.0E+16 ohms·cm | IEC 60093 |
| Electric Strength | | | IEC 60243-1 |
| 73°F (23°C), 0.0394 in (1.00 mm) | 890 V/mil | 35 kV/mm | |
| Relative Permittivity | | | IEC 60250 |
| 73°F (23°C), 100 Hz | 3.00 | 3.00 | |
| 73°F (23°C), 1 MHz | 2.90 | 2.90 | |
| Dissipation Factor | | | IEC 60250 |
| 73°F (23°C), 100 Hz | 2.5E-3 | 2.5E-3 | |
| 73°F (23°C), 1 MHz | 9.5E-3 | 9.5E-3 | |
| Comparative Tracking Index (Solution A) | 200 V | 200 V | IEC 60112 |

| Fill Analysis | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|-------------------------|--------------------|-------------|
| Melt Viscosity ³ (500°F (260°C)) | 260 Pa·s | 260 Pa·s | ISO 11443-A |

| Additional Information | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| ISO Shortname | PC+ABS | PC+ABS |

| Injection | Nominal Value (English) | Nominal Value (SI) |
|------------------------------------|-------------------------|--------------------|
| Drying Temperature - Dry Air Dryer | 203 to 230 °F | 95 to 110 °C |
| Drying Time - Dry Air Dryer | 4.0 hr | 4.0 hr |
| Suggested Max Moisture | < 0.020 % | < 0.020 % |
| Suggested Shot Size | 30 to 70 % | 30 to 70 % |
| Rear Temperature | 446 to 464 °F | 230 to 240 °C |
| Middle Temperature | 455 to 473 °F | 235 to 245 °C |
| Front Temperature | 464 to 518 °F | 240 to 270 °C |
| Nozzle Temperature | 509 to 527 °F | 265 to 275 °C |
| Processing (Melt) Temp | 500 to 536 °F | 260 to 280 °C |
| Mold Temperature | 158 to 194 °F | 70 to 90 °C |
| Back Pressure | 725 to 2180 psi | 5.00 to 15.0 MPa |
| Vent Depth | 9.8E-4 to 3.0E-3 in | 0.025 to 0.075 mm |

Injection Notes
 Peripheral Screw Speed: 0.05 - 0.2 m/s
 Hold Pressure (% of Injection Pressure): 50 - 75%
 Standard Melt Temperature: 270°C

Notes

- ¹ Typical properties: these are not to be construed as specifications.
- ² 60x60x2mm, MT 80°C
- ³ 1000s-1



Where to Buy

Supplier

Covestro - Polycarbonates

Leverkusen, Germany
Telephone: +49-214-6009-2000
Web: <http://www.plastics.covestro.com/>

Distributor

ALBIS Plastic

ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.

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Reseller

A Reseller is not a distributor authorized by the Supplier.

Shanghai Jingyang New Material Technology Co., Ltd

Telephone: +86-021-80394788; Mr. Zhou: +86-15821998203

Web: <http://www.basfppsu.com/>

Availability: Asia Pacific, China