

Bayblend® W85 XF

Polycarbonate + ASA

Covestro - Polycarbonates

PROSPECTOR®

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Technical Data

Product Description

PC+ASA-Blend; Vicat/B 120 temperature = 134°C; improved weather resistance; excellent low temperature ductility; excellent low temperature ductility; good heat resistance

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Ductile • Heat Aging Resistant	• Medium Heat Resistance • Weather Resistant	
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density (73°F (23°C))	1.16 g/cm ³	1.16 g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	1.65 in ³ /10min	27.0 cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 2577
Across Flow : 500°F (260°C), 0.118 in (3.00 mm)	0.55 to 0.75 %	0.55 to 0.75 %	
Flow : 500°F (260°C), 0.118 in (3.00 mm)	0.55 to 0.75 %	0.55 to 0.75 %	
Water Absorption			ISO 62
Saturation, 73°F (23°C)	0.50 %	0.50 %	
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))	355000 psi	2450 MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield, 73°F (23°C)	9140 psi	63.0 MPa	
Break, 73°F (23°C)	8990 psi	62.0 MPa	
Tensile Strain			ISO 527-2/50
Yield, 73°F (23°C)	5.0 %	5.0 %	
Break, 73°F (23°C)	> 50 %	> 50 %	

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact Strength			ISO 180/A
-4°F (-20°C)	7.1 ft·lb/in ²	15 kJ/m ²	
73°F (23°C)	21 ft·lb/in ²	45 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	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	261 °F	127 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	228 °F	109 °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)	3.9E-5 in/in/°F	7.0E-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	3.10	3.10	
73°F (23°C), 1 MHz	2.80	2.80	
Dissipation Factor			IEC 60250
73°F (23°C), 100 Hz	2.5E-3	2.5E-3	
73°F (23°C), 1 MHz	0.011	0.011	
Comparative Tracking Index (Solution A)	225 V	225 V	IEC 60112
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating (0.03 in (0.9 mm))	HB	HB	UL 94
Oxygen Index ³	25 %	25 %	ISO 4589-2
Fill Analysis	Nominal Value (English)	Nominal Value (SI)	Test Method
Melt Viscosity ⁴ (500°F (260°C))	225 Pa·s	225 Pa·s	ISO 11443-A
Additional Information	Nominal Value (English)	Nominal Value (SI)	
ISO Shortname	PC+ASA	PC+ASA	
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	< 0.010 %	< 0.010 %	
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

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

Notes

- ¹ Typical properties: these are not to be construed as specifications.
- ² 150x105x3mm., MT 80°C
- ³ Procedure A
- ⁴ 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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Amco Polymers

Telephone: 800-262-6685

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M. Holland Company

Telephone: 855-497-1403

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

Availability: Mexico, United States

PolyOne Distribution

PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.

Telephone: 800-894-4266

Web: <http://polyonedistribution.com/>

Availability: Global

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