

Bayblend® T85 XF

Covestro - Polycarbonates - Polycarbonate + ABS

Thursday, December 21, 2023

General Information

Product Description

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

General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Flow		
RoHS Compliance	• RoHS Compliant		
Automotive Specifications	• FORD WSA-M4D688-A1 • FORD WSA-M4D688-A2 • FORD WSS-M4D585-B • FORD WSS-M4D585-C1	• GM GMP.ABS+PC.002 • GM GMW15581P-ABS+PC-T3 • GM GMW15581P-ABS+PC-T3 Color: 901510 Black • GM GMW15581P-ABS+PC-T6	• GM GMW15581P-ABS+PC-T6 Color: 901510 Black • GM QK 000188 Type B Color: 901510 Black • GM QK 002413 Color: 901510 Black
ISO Shortname	• PC+ABS		

ASTM & ISO Properties ¹

Physical	Typical Value (English)	Typical 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)	19 cm ³ /10min	19 cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 2577
Across Flow : 500°F (260°C), 0.118 in (3.00 mm)	0.50 to 0.70 %	0.50 to 0.70 %	
Flow : 500°F (260°C), 0.118 in (3.00 mm)	0.50 to 0.70 %	0.50 to 0.70 %	
Water Absorption			ISO 62
Saturation, 73°F (23°C)	0.70 %	0.70 %	
Equilibrium, 73°F (23°C), 50% RH	0.20 %	0.20 %	
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus (73°F (23°C))	334000 psi	2300 MPa	ISO 527-1/1
Tensile Stress			ISO 527-2/50
Yield, 73°F (23°C)	7830 psi	54.0 MPa	
Break, 73°F (23°C)	7250 psi	50.0 MPa	
Tensile Strain			ISO 527-2/50
Yield, 73°F (23°C)	4.7 %	4.7 %	
Break, 73°F (23°C)	> 50 %	> 50 %	

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Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	18 ft·lb/in ²	37 kJ/m ²	
73°F (23°C)	24 ft·lb/in ²	50 kJ/m ²	
Notched Izod Impact Strength			ISO 180/A
-22°F (-30°C)	17 ft·lb/in ²	35 kJ/m ²	
73°F (23°C)	23 ft·lb/in ²	48 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	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	259 °F	126 °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/B120
--	262 °F	128 °C	ISO 306/B50
CLTE			ISO 11359-2
Flow : 73 to 131°F (23 to 55°C)	4.2E-5 in/in/°F	7.5E-5 cm/cm/°C	
Transverse : 73 to 131°F (23 to 55°C)	4.4E-5 in/in/°F	8.0E-5 cm/cm/°C	
Electrical	Typical Value (English)	Typical 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	3.00	3.00	
Dissipation Factor			IEC 60250
73°F (23°C), 100 Hz	2.0E-3	2.0E-3	
73°F (23°C), 1 MHz	8.5E-3	8.5E-3	
Comparative Tracking Index (Solution A)	225 V	225 V	IEC 60112
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.03 in (0.9 mm))	HB	HB	UL 94
Oxygen Index ³	24 %	24 %	ISO 4589-2
Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Melt Viscosity ⁴ (500°F (260°C))	250 Pa·s	250 Pa·s	ISO 11443-A

Processing Information

Injection	Typical Value (English)	Typical 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

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Injection	Typical Value (English)	Typical Value (SI)
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 150x105x3mm,, MT 80°C

³ Procedure A

⁴ 1000s-1

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