Bayblend® T85 XF

Covestro - Polycarbonates - Polycarbonate + ABS

Thursday, January 23, 2025

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/cm³	1.14	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	19	cm³/10min	19	cm³/10min	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/in²	37	kJ/m²	
73°F (23°C)	24	ft·lb/in²	50	kJ/m²	
Notched Izod Impact Strength					ISO 180/A
-22°F (-30°C)	17	ft·lb/in²	35	kJ/m²	
73°F (23°C)	23	ft·lb/in²	48	kJ/m²	
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