Bayblend® M301 FR

Covestro - Polycarbonates - *Polycarbonate + ABS*

General Information

Product Description

(PC+ABS)-Blend; Vicat/B 120 = 105°C; suitable for use in electrical and electronic devices; Manufactured according to GMP; tested only according to ISO 10993-5 and ISO 10993-10 for contact with uncompromised skin only; for questions regarding biocompatibility we ask for an email inquiry under plastics@covestro.com

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Flame Retardant		
Features	• Flame Retardant		
Uses	• Electrical/Electronic Applications	• Medical/Healthcare Applications	
Agency Ratings	• ISO 10993-10	• ISO 10993-5	
RoHS Compliance	• RoHS Compliant		
ISO Designation	• PC+ABS-FR(40)		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.19	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (240°C/5.0 kg)	25	cm³/10min	ISO 1133
Molding Shrinkage [2]			ISO 2577
Across Flow : 464°F, 0.118 in	0.50 to 0.70	%	
Flow : 464°F, 0.118 in	0.50 to 0.70	%	
Water Absorption (Saturation, 73°F)	0.50	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (73°F)	377000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	8700	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	7250	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	4.0	%	ISO 527-2/50
Tensile Strain (Break, 73°F)	> 30	%	ISO 527-2/50
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact Strength (73°F)	17	ft·lb/in²	ISO 180/A
Unnotched Izod Impact Strength (73°F)	No Break		ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	203	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	185	°F	ISO 75-2/A
Vicat Softening Temperature	221	°F	ISO 306/B120
CLTE - Flow (73 to 131°F)	4.2E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	4.4E-5	in/in/°F	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity (73°F)	1.0E+16	ohms·cm	IEC 60093
Electric Strength (73°F, 0.0394 in)	760	V/mil	IEC 60243-1
Relative Permittivity			IEC 60250
73°F, 100 Hz	3.20		
73°F, 1 MHz	3.10		
Dissipation Factor			IEC 60250

73°F, 100 Hz	5.0E-3		
73°F, 1 MHz	7.0E-3		
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.06 in	V-0		
0.08 in	5VB		
0.12 in	5VA		
Fill Analysis	**Nominal Value**	**Unit**	**Test Method**
Melt Viscosity [3] (500°F)	170	Pa·s	ISO 11443-A

Processing Information

Injection	**Nominal Value**	**Unit**
Drying Temperature - Dry Air Dryer	176	°F
Drying Time - Dry Air Dryer	4.0	hr
Suggested Max Moisture	< 0.020	%
Suggested Shot Size	30 to 70	%
Rear Temperature	428 to 446	°F
Middle Temperature	437 to 455	°F
Front Temperature	446 to 464	°F
Nozzle Temperature	491 to 509	°F
Processing (Melt) Temp	464 to 518	°F
Mold Temperature	140 to 194	°F
Back Pressure	725 to 2180	psi
Vent Depth	9.8E-4 to 3.0E-3	in

Injection Notes

Standard Melt Temperature: 260°C
Hold Pressure (% of Injection Pressure): 50 - 75%
Peripheral Screw Speed: 0.05 - 0.2 m/s

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 150x105x3mm,, MT 80°C

[3] 1000s-1