

**Bayblend® M303 FR**

 Covestro - Polycarbonates - *Polycarbonate + ABS*
**General Information**
**Product Description**

(PC+ABS)-Blend; Vicat/B 120 temperature = 115°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](mailto:plastics@covestro.com)

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin 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 <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.19	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	11	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			ISO 2577
Across Flow	0.50 to 0.70	%	
Flow	0.50 to 0.70	%	
Water Absorption (Saturation, 73°F)	0.50	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	384000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	10000	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	7690	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	5.0	%	ISO 527-2/50
Nominal Tensile Strain at Break (73°F)	> 50	%	ISO 527-2/50
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength			ISO 180/A
-22°F	4.8	ft·lb/in <sup>2</sup>	
73°F	19	ft·lb/in <sup>2</sup>	
Unnotched Izod Impact Strength (73°F)	No Break		ISO 180
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	223	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	208	°F	ISO 75-2/A
Vicat Softening Temperature			
--	239	°F	ISO 306/B120
--	235	°F	ISO 306/B50
CLTE - Flow (73 to 131°F)	3.8E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	4.0E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+17	ohms	IEC 60093
Volume Resistivity (73°F)	1.0E+17	ohms·cm	IEC 60093
Electric Strength (73°F, 0.0394 in)	890	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	3.7E-3	
73°F, 1 MHz	7.5E-3	
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>
Flame Rating		UL 94
0.030 in, Internal Test	V-2	
0.06 in, Internal Test	V-0	
<b>Fill Analysis</b>	<b>Nominal Value</b>	<b>Unit</b>
Melt Viscosity <sup>2</sup> (500°F)	410 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

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

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 1000s-1

