

Bayblend® M303 FR

FR grades / Non reinforced

(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

ISO Shortname

PC+ABS-FR(40)

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
C Melt volume-flow rate	260 °C/ 5 kg	cm ³ /10 min	ISO 1133	11
Melt viscosity	1000 s ⁻¹ / 260 °C	Pa·s	b.o. ISO 11443-A	410
Molding shrinkage, parallel/normal	Value range based on general practical experience	%	b.o. ISO 2577	0.5 - 0.7
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2650
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	69
C Yield strain	50 mm/min	%	ISO 527-1,-2	5
C Nominal strain at break	50 mm/min	%	ISO 527-1,-2	> 50
Stress at break	50 mm/min	MPa	ISO 527-1,-2	53
Izod impact strength	23 °C	kJ/m ²	ISO 180-U	N
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-A	40
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-A	10
Thermal properties				
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	98
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	106
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	113
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	115
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.68
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.72
C Burning behavior UL 94 (1.5 mm) [UL recognition]	1.5 mm	Class	UL 94	V-0
C Burning behavior UL 94 [UL recognition]	0.75 mm	Class	UL 94	V-2
Electrical properties (23 °C/50 % r. h.)				
C Relative permittivity	100 Hz	-	IEC 60250	3.2
C Relative permittivity	1 MHz	-	IEC 60250	3.1
C Dissipation factor	100 Hz	10 ⁻⁴	IEC 60250	37
C Dissipation factor	1 MHz	10 ⁻⁴	IEC 60250	75
C Volume resistivity		Ohm·m	IEC 60093	1E15
C Surface resistivity		Ohm	IEC 60093	1E17
C Electrical strength	1 mm	kV/mm	IEC 60243-1	35
Other properties (23 °C)				
C Water absorption (saturation value)	Water at 23 °C	%	ISO 62	0.5
C Density		kg/m ³	ISO 1183-1	1190



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Property	Test Condition	Unit	Standard	typical Value
Recommended Processing and Drying Conditions				
Melt Temperatures		°C	-	240 - 270
Standard Melt Temperature		°C	-	260
Barrel Temperatures - Rear		°C	-	220 - 230
Barrel Temperatures - Middle		°C	-	225 - 235
Barrel Temperatures - Front		°C	-	230 - 240
Barrel Temperatures - Nozzle		°C	-	255 - 265
Mold Temperatures		°C	-	60 - 90
Hold Pressure (% of injection pressure)		%	-	50 - 75
Plastic Back Pressure (specific)		bar	-	50 - 150
Peripheral Screw Speed		m/s	-	0.05 - 0.2
Shot-to-Cylinder Size		%	-	30 - 70
Dry Air Drying Temperature		°C	-	80
Dry Air Drying Time		h	-	4
Moisture Content max. (%)		%	-	<= 0,02
Vent Depth		mm	-	0.025 - 0.075

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

Impact properties: N = non-break, P = partial break, C = complete break