

Bayblend® FR411 MT

FR grades / Extrusion

Rubber modified PC blend; flame retardant; mineral filled ; Vicat/B 120 temperature = 99 °C; extrusion grade for European railway interiors requiring EN45545; the classifications according to the respective rail standards are communicated with email inquiry under plastics@covestro.com

ISO Shortname

Property	Test Condition	Unit	Standard	typical Value
Rheological properties				
C Melt volume-flow rate	260 °C; 5 kg	cm ³ /10 min	ISO 1133	15
Melt viscosity	1000 s ⁻¹	Pa·s	b.o. ISO 11443-A	240
Molding shrinkage, parallel	150x105x3 mm	%	b.o. ISO 2577	0.3-0.5
Molding shrinkage, normal	150x105x3 mm	%	b.o. ISO 2577	0.2-0.4
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	5250
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	67
C Yield strain	50 mm/min	%	ISO 527-1,-2	3
Stress at break	50 mm/min	MPa	ISO 527-1,-2	59
Strain at break	50 mm/min	%	b.o. ISO 527-1,-2	5
Izod impact strength	23 °C	kJ/m ²	ISO 180-U	43
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-A	6
Thermal properties				
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	87
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	93
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	97
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	99
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.4
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.6
C Burning behavior UL 94 (1.5 mm)		Class	UL 94	V-0 (Covestro Test)
C Burning behavior UL 94	0.75 mm	Class	UL 94	V-0 (Covestro Test)
Burning behavior UL 94-5V	3.0 mm	Class	UL 94	5VB (Covestro Test)
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	61
C Dissipation factor	1 MHz	10 ⁻⁴	IEC 60250	76
C Volume resistivity		Ohm·m	IEC 60093	4E+15
C Surface resistivity		Ohm	IEC 60093	5E+16
C Electrical strength	1 mm	kV/mm	IEC 60243-1	39
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	225
Other properties (23 °C)				
C Water absorption (saturation value)	Water at 23 °C	%	ISO 62	0.4
C Water absorption (equilibrium value)	23 °C; 50 % r. h.	%	ISO 62	0.1
C Density		kg/m ³	ISO 1183-1	1360
Processing conditions for test specimens				
C Injection molding-Melt temperature		°C	ISO 294	260
C Injection molding-Mold temperature		°C	ISO 294	80
C Injection molding-Injection velocity		mm/s	ISO 294	240

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





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Disclaimer

Information Impact properties

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Typical value

These values are typical values only. Unless explicitly agreed in written form, they do not constitute a binding material specification or warranted values. Values may be affected by the design of the mold/die, the processing conditions and coloring/pigmentation of the product. Unless specified to the contrary, the property values given have been established on standardized test specimens at room temperature.

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Disclaimer Non Medical Grade

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