Bayblend® FR410 MT

FR grades / Mineral filled

Rubber modified PC blend; 10 % mineral filled; flame retardant; Vicat/B 120 temperature = 108 °C; very good UL recognition in small wall thicknesses (V-0 at 0.75 mm); for railway interiors; due to the special formulation of this grade, the final parts may require coating; the classifications according to the respective rail standards are communicated with email inquiry under plastics@covestro.com

ISO Shortname

PC-I-TD10 FR(40+72)

	Property	Test Condition	Unit	Standard	typical Value
Rheological properties					
C	Melt volume-flow rate	260 °C; 5 kg	cm³/10 min	ISO 1133	10
	Melt viscosity	1000 s^{-1}; 260 °C	Pa·s	b.o. ISO 11443-A	360
	Molding shrinkage, parallel	150x105x3 mm; 260 °C / MT 80 °C	%	b.o. ISO 2577	0.4 - 0.5
	Molding shrinkage, normal	150x105x3 mm; 260 °C / MT 80 °C	%	b.o. ISO 2577	0.4 - 0.5
Mechanical properties (23 °C/50 % r. h.)					
C	Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	3950
C	Yield stress	50 mm/min	MPa	ISO 527-1,-2	63
C	Yield strain	50 mm/min	%	ISO 527-1,-2	4.0
	Stress at break	50 mm/min	MPa	ISO 527-1,-2	50
	Strain at break	50 mm/min	%	b.o. ISO 527-1,-2	19
	Izod notched impact strength	23 °C	kJ/m²	ISO 180-A	9.0
	Izod notched impact strength	-30 °C	kJ/m²	ISO 180-A	7.0
Thermal properties					
C	Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	94
C	Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	106
	Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	108
C	Coefficient of linear thermal expansion, parallel	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.48
C	Coefficient of linear thermal expansion, transverse	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.59
C	Burning behavior UL 94 [UL recognition]	0.75 mm	Class	UL 94	V-0
C	Burning behavior UL 94-5V [UL recognition]	2.0 mm	Class	UL 94	5VB
	Burning behavior UL 94-5V [UL recognition]	3.0 mm	Class	UL 94	5VA
Other properties (23 °C)					
C	Water absorption (saturation value)	Water at 23 °C	%	ISO 62	0.5
C	Water absorption (equilibrium value)	23 °C; 50 % r. h.	%	ISO 62	0.2
C	Density		kg/m³	ISO 1183-1	1300
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, the 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.

General

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Disclaimer Non Medical Grade

This product is not designated for the manufacture of a medical device or of intermediate products for medical devices (1). [This product is also not designated for Food Contact (2), including drinking water, or cosmetic applications. If the intended use of the product is for the manufacture of a medical device or of intermediate products for medical devices, for Food Contact products or cosmetic applications Covestro must be contacted in advance to provide its agreement to sell such product for such purpose.] Nonetheless, any determination as to whether a product is appropriate for use in a medical device or intermediate products for medical devices, for Food Contact products or cosmetic applications must be made solely by the purchaser of the product without relying upon any representations by Covestro. 1) Please see the "Guidance on Use of Covestro Products in a Medical Application" document. 2) As defined in Commission Regulation (EU) 1935/2004.