

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	cm ³ /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/m ²	ISO 180-A	9.0
Izod notched impact strength	-30 °C	kJ/m ²	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/m ³	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

