



# Bayblend FR3010

## FR grades / Non reinforced

(PC+ABS) blend; unreinforced; flame-retardant; injection molding grade; increased heat resistance; Vicat/B 120 temperature = 110 °C; UL recognition 94 V-0 (1.5 mm); antimony-, chlorine- and bromine-free flame retardant; glow wire test (GWFI): 960 °C (2.0 mm); improved chemical resistance and stress cracking behavior; successor to FR2010.

## ISO Shortname

Property	Test Condition	Unit	Standard	typical Value
<b>Rheological properties</b>				
C Melt volume-flow rate	240 °C; 5 kg	cm <sup>3</sup> /10 min	ISO 1133	15
Molding shrinkage, parallel	150x105x3 mm; 240 °C / MT 80 °C	%	b.o. ISO 2577	0.5 - 0.7
Molding shrinkage, normal	150x105x3 mm; 240 °C / MT 80 °C	%	b.o. ISO 2577	0.5 - 0.7
Melt viscosity	1000 s <sup>-1</sup> ; 260 °C	Pa·s	b.o. ISO 11443-A	245
<b>Mechanical properties (23 °C/50 % r. h.)</b>				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2700
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	60
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	> 50
Izod impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-U	N
Izod notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-A	35
Izod notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-A	10
<b>Thermal properties</b>				
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	90
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	100
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	108
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	110
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.76
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.8
C Burning behavior UL 94 (1.5 mm) [UL recognition]	1.5 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
<b>Electrical properties (23 °C/50 % r. h.)</b>				
C Relative permittivity	100 Hz	-	IEC 60250	3.2
C Relative permittivity	1 MHz	-	IEC 60250	3.1
C Dissipation factor	100 Hz	10 <sup>-4</sup>	IEC 60250	50
C Dissipation factor	1 MHz	10 <sup>-4</sup>	IEC 60250	70
C Volume resistivity		Ohm·m	IEC 60093	1E14
C Surface resistivity		Ohm	IEC 60093	1E16
C Electrical strength	1 mm	kV/mm	IEC 60243-1	35
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	350
<b>Other properties (23 °C)</b>				
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 <sup>3</sup>	ISO 1183-1	1180

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Property	Test Condition	Unit	Standard	typical Value
<b>Processing conditions for test specimens</b>				
C Injection molding-Melt temperature		°C	ISO 294	240
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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