



Bayblend FR 86

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Injection molding grade; easy flowing; Vicat/B 120 temperature = 87 °C; UL-listing 94 V-0 (1.5 mm); antimony-, chlorine- and bromine-free flame retardant; good light stability.

ISO Shortname

Property	Test Condition	Unit	Standard	Value
Rheological properties				
Spiral flow length	260 °C; 2 x 8.7 mm	mm	Bayer test	635
C Melt volume-flow rate	240 °C; 5 kg	cm ³ /(10 min)	ISO 1133	50
Molding shrinkage, parallel	150x105x3; 240 °C / MT 80 °C; 500 bar	%	acc. ISO 2577	0.4 - 0.6
Molding shrinkage, normal	150x105x3; 240 °C / MT 80 °C; 500 bar	%	acc. ISO 2577	0.4 - 0.6
Mechanical properties (23 °C/50 % r. h.)				
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2700
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	55
C Yield strain	50 mm/min	%	ISO 527-1,-2	3.5
Stress at break	50 mm/min	MPa	ISO 527-1,-2	42
Strain at break	50 mm/min	%	acc. ISO 527-1,-2	45
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	N
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	10
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	8
Thermal properties				
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	75
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	82
C Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	85
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	87
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.76
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.8
C Burning behavior UL 94 (1.6 mm) [UL listed]	1.5 mm	Class	UL 94	V-0
C Burning behavior UL 94-5V [UL listed]	2.0 mm	Class	UL 94	5VB
Burning behavior UL 94-5V [UL listed]	3.0 mm	Class	UL 94	5VA
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	50
C Dissipation factor	1 MHz	10 ⁻⁴	IEC 60250	80
C Volume resistivity		Ohm·m	IEC 60093	1E14
C Surface resistivity		Ohm	IEC 60093	1E14
C Electric strength	1 mm	kV/mm	IEC 60243-1	30
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	600
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 % RH	%	ISO 62	0.2
C Density		kg/m ³	ISO 1183	1180
Processing conditions for test specimens				
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

