Bayblend DP FR 3006

FR grades / Non reinforced

Injection molding grade; high heat resistance; Vicat/B 120 = 110 °C; easy flow; UL-listing 94 V-1 at 1.5 mm and V-0 at 2.0 mm.

ISO Shortname

	Property	Test Condition	Unit	Standard	Value
Rheological properties					
C	Melt volume-flow rate	240 °C; 5 kg	cm³/(10 min)	ISO 1133	34
	Molding shrinkage, parallel	150x105x3; 240 °C / MT 80 °C; 500 bar	%	b.o. ISO 2577	0.5 - 0.7
	Molding shrinkage, normal	150x105x3; 240 °C / MT 80 °C; 500 bar	%	b.o. ISO 2577	0.5 - 0.7
	Melt viscosity	1000 s^-1^; 260 °C	Pa·s	b.o. ISO 11443-A	130
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	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/m²	ISO 180/U	N
	Izod notched impact strength	23 °C	kJ/m²	ISO 180/A	12
Thermal properties					
C	Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	91
C	Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	101
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^{-4}/K	ISO 11359-1,-2	0.68
C	Coefficient of linear thermal expansion, transverse	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.68
C	Burning behavior UL 94 (1.5 mm) [UL recognition]	1.5 mm	Class	UL 94	V-1
C	Burning behavior UL 94 [UL recognition]	2.0 mm	Class	UL 94	V-0
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	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	30
C	Comparative tracking index CTI	Solution A	Rating	IEC 60112	350
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	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

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.

Bayblend DP FR 3006

Disclaimer

Disclaimer for Developmental products

* This is a developmental product. Further information, including amended or supplementary data on hazards associated with its use, may be compiled in the future. For this reason, no assurances are given as to type conformity, processability, long-term performance characteristics or other production or application parameters. Therefore, the purchaser/user uses the product entirely at his own risk without having been given any warranty or guarantee and agrees that the supplier shall not be liable for any damage, of whatever nature, arising out of such use.

Test values

Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Please note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mold/die, the processing conditions and coloring.

Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing.To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensured by the provision of efficient exhaust ventilation and fresh air at the workplace in accordance with the Safety Data Sheet. In order to prevent the partial decomposition of the polymer and the generation of volatile decomposition products, the prescribed processing temperatures should not be substantially exceeded.

Publisher: Business Development Plastics

Bayer MaterialScience AG,

D-51368 Leverkusen,

www.bayermaterialscience.com