Bayblend® T88 GF-20

Standard grades / Glass fiber reinforced	Rubber modified (PC+SAN) blend; 20% glass fiber filled; Vicat/B 120 temperature = 130 °C; optimized heat ageing- and UV-stability; very good flow; tensile modulus = 7200 MPa; good heat resistance
ISO Shortname	PC+SAN-I-GF20

	Property	Test Condition	Unit	Standard	typical Value
Rheological properties					
C	Melt volume-flow rate	260 °C/ 5 kg	cm³/10 min	ISO 1133	14
	Melt viscosity	1000 s^{-1}/ 260 °C	Pa·s	b.o. ISO 11443-A	205
	Molding shrinkage, parallel	150x105x3 mm/ 260 °C / MT 80 °C	%	b.o. ISO 2577	0.2 - 0.4
	Molding shrinkage, normal	150x105x3 mm/ 260 °C / MT 80 °C	%	b.o. ISO 2577	0.3 - 0.5
Mechanical properties (23 °C/50 % r. h.)					
C	Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	7200
	Yield stress	5 mm/min	MPa	ISO 527-1,-2	120
	Yield strain	5 mm/min	%	ISO 527-1,-2	2.4
C	Stress at break	5 mm/min	MPa	ISO 527-1,-2	120
C	Strain at break	5 mm/min	%	ISO 527-1,-2	2.4
	Izod impact strength	23 °C	kJ/m²	ISO 180/U	38
	Izod impact strength	-30 °C	kJ/m²	ISO 180/U	38
	Izod notched impact strength	23 °C	kJ/m²	ISO 180/A	8.0
	Izod notched impact strength	-30 °C	kJ/m²	ISO 180/A	8.0
Thermal properties					
C	Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	119
C	Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	129
C	Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	128
	Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	130
C	Coefficient of linear thermal expansion, parallel	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.3
C	Coefficient of linear thermal expansion, normal	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.65
C	Burning behavior UL 94 [UL recognition]	0.85 mm	Class	UL 94	HB
Electrical properties (23 °C/50 % r. h.)					
C	Relative permittivity	100 Hz	-	IEC 60250	3.3
C	Relative permittivity	1 MHz	-	IEC 60250	3.2
C	Dissipation factor	100 Hz	10^{-4}	IEC 60250	25
C	Dissipation factor	1 MHz	10^{-4}	IEC 60250	85
C	Volume resistivity		Ohm·m	IEC 60093	1E14
C	Surface resistivity		Ohm	IEC 60093	1E17
C	Electrical strength	1 mm	kV/mm	IEC 60243-1	35
C	Comparative tracking index CTI	Solution A	Rating	IEC 60112	150
Other properties (23 °C)					
C	Water absorption (saturation value)	Water at 23 °C	%	ISO 62	0.4
C	Water absorption (equilibrium value)	23 °C; 50 % r. h.	%	ISO 62	0.2
C	Density		kg/m³	ISO 1183-1	1290
	Glass fiber content	Method A	%	b.o. ISO 3451-1	20
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	540

Bayblend® T88 GF-20

	Property	Test Condition	Unit	Standard	typical Value
Recommended processing and drying conditions					
	Melt temperatures		°C	-	260 - 280
	Standard Melt temperature		°C	-	270
	Barrel Temperatures - Rear		°C	-	230 - 240
	Barrel Temperatures - Middle		°C	-	235 - 245
	Barrel Temperatures - Front		°C	-	240 - 270
	Barrel Temperatures - Nozzle		°C	-	265 - 275
	Mold Temperatures		°C	-	70 - 90
	Hold Pressure (% of injection pressure)		%	-	50 - 75
	Plastic Back Pressure (specific)		bar	-	50 - 150
	Peripheral Screw Speed		m/s	-	0.05 - 0.2
	Shot-to-Cylinder Size		%	-	30 - 70
	Dry Air Drying Temperature		°C	-	95 - 110
	Dry Air Drying Time		h	-	4
	Moisture Content max. (%)		%	-	<= 0,02
	Vent Depth		mm	-	0.025 - 0.075

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