



Badadur® PBT8 GF15				
PBT-GF				
Medium viscosity, 15 % glass fibres reinforced standard injection moulding grade with very good mechanical properties				
Properties	Test Conditions	Test Methods	Units	Typical Values
Mechanical Properties				
Tensile Modulus ¹	23° C, 1 mm/Min	ISO 527-1/2	MPa	6000
Yield Stress ¹	23° C, 50 mm/Min	ISO 527-1/2	MPa	*
Yield Strain ¹	23° C, 50 mm/Min	ISO 527-1/2	%	*
Nominal Stress at Break ¹	23° C, 50 mm/Min	ISO 527-1/2	%	*
Stress at Break ¹	23° C, 5 mm/Min	ISO 527-1/2	MPa	100
Strain at Break ¹	23° C, 5 mm/Min	ISO 527-1/2	%	3,3
Bending Strength ²	23° C	ISO 178	MPa	155
Charpy Impact Strength, unnotched ²	23° C	ISO 179/1eU	kJ/m2	50
	-30° C	ISO 179/1eU	kJ/m2	45
Notched Charpy Impact Strength ²	23° C	ISO 179/1eA	kJ/m2	7,5
	-30° C	ISO 179/1eA	kJ/m2	7,5
Izod notched Impact Strength ²	23° C	ISO 180/1A	kJ/m2	7
	-30° C	ISO 180/1A	kJ/m2	6
Thermal Properties				
Melting Temperature ³	10 K/Min	ISO 3146	°C	223
Temperature of Deflection under Load ⁴	0,45 MPa	ISO 75-1/2	°C	215
	1,8 MPa	ISO 75-1/2	°C	200
Coefficient of Linear Thermal Elongation ⁵	parallel direction	DIN 53752	E-4/K	0,5
	transverse direction	DIN 53752	E-4/K	1,1
Maximum Service Temperature	some hours	-	°C	165
	20 000 h 50 % Decrease in Tensile Strength or Yield Stress	IEC 216	°C	135
Flammability ⁶	0,8 mm	UL 94	Class	HB
	1,6 mm	UL 94	Class	HB
Glow Wire Test	0,75 mm / 1,6 mm	GWIT	IEC-60695-2-13	-
	0,75 mm / 1,6 mm	GWFI	IEC-60695-2-12	-
Electric Properties				
Relative Permittivity ⁷	1 MHz	IEC 250	-	3,7
Dissipation Factor ⁷	1 MHz	IEC 250	E-4	200
Specific Volume Resistivity ⁷	-	IEC 93	Ohm cm	>10 ¹⁶
Specific Surface Resistivity ⁷	-	IEC 93	Ohm	>10 ¹⁴
Dielectric Strength ⁷	-	IEC 243-1	kV/mm	29
Comparative Tracking Index	-	IEC 112	V	400
Other data				
Water Absorption	23° C, Saturation	ISO 62	%	0,43
Moisture Absorption	23° C, 50 % r.H.	ISO 62	%	0,16
Melt Volume Rate (MVR)	250° C/2,16kg	ISO 1133	cm ³ /10 min	-
Density	23° C	ISO 1183	g/ccm	1,41
Processing				
Melt Temperature	-	-	°C	245 – 265
Tool Surface Temperature	-	-	°C	60 – 100
Drying Temperature	-	-	°C	110 – 130
Drying Time	-	-	h	2 – 4h

LEGEND:

- ¹ Test Specimen according to ISO 3167, Type A
- ² Standard bar (80 x 10 x 4) mm
- ³ Compound for moulding
- ⁴ Standard bar (110 x 10 x 4) mm
- ⁵ Specimen (≥ 10 x 10 x 4) mm
- ⁶ Standard bar [125 x 13 x 0,8(1,6)] mm
- ⁷ Bar (80 x 80 x 1) mm
- ⁸ Specimen (≥ 15 x 15 x 4) mm

- * not relevant
- not tested
- NB = No break

These data are typical values and represent the state of our knowledge at issue date. If not otherwise stated, the data is related to uncoloured material. They must not be construed as specification limits or as a guarantee for specific properties.
It is the liability of the processor to test the suitability of the material for a specific application.

Issue date: 2008-09-15