

Technical Data Sheet



PiraDur® A5 GF30 Black (PBT + 30% GF Black)

PBT-GF

Medium viscosity, 30 % glass fibers reinforced standard injection moulding grade with very good mechanical properties

Properties	Test Conditions	Test Method	Units	Typical Values
Mechanical Properties				
Tensile Modulus	23° C, 1 mm/Min	ISO 527-1/2	Mpa	10000
Yield Stress	23° C, 50 mm/Min	ISO 527-1/2	Mpa	*
Yield Strain	23° C, 50 mm/Min	ISO 527-1/2	%	*
Nominal Stress at Break	23° C, 50 mm/Min	ISO 527-1/2	%	*
Stress at Break	23° C, 5 mm/Min	ISO 527-1/2	Mpa	140
Strain at Break	23° C, 5 mm/Min	ISO 527-1/2	%	2.6
Bending Strength	23° C	ISO 178	Mpa	210
Charpy Impact Strength, unnotched	23° C -30° C	ISO 179/1eU ISO 179/1eU	kJ/m2 kJ/m2	60 55
Notched Charpy Impact Strength	23° C -30° C	ISO 179/1eA ISO 179/1eA	kJ/m2 kJ/m3	11 10
Izod notched Impact Strength	23° C -30° C	ISO 180/1A ISO 180/1A	kJ/m2 kJ/m4	10 9
Thermal Properties				
Melting Temperature	10 K/Min	ISO 3146	°C	223
Temperature of Deflection under Load	0,45 MPa 1,8 MPa	ISO 75-1/2 ISO 75-1/2	°C °C	220 205
Coefficient of Linear Thermal Elongation	parallel direction transverse direction	DIN 53752 DIN 53752	E-4/K E-4/K	0.35 0.95
Maximum Service Temperature	some hours 20 000 h 50 % Decrease in Tensile Strength or Yield Stres	– IEC 216	°C °C	170 140
Flammability	0,8 mm 1,6 mm	UL 94 UL 94	Class Class	HB HB
Glow Wire Test	0,75 mm / 1,6 mm 0,75 mm / 1,6 mm	GWIT GWFI	IEC-60695-2-13 IEC-60695-2-12	– –
Electric Properties				
Relative Permittivity	1 MHz	IEC 250	–	4.1
Dissipation Factor	1 MHz	IEC 250	E-4	200
Specific Volume Resistivity	-	IEC 93	Ohm cm	>10 ¹⁶
Specific Surface Resistivity	-	IEC 93	Ohm	>10 ¹⁴
Dielectric Strength	-	IEC 243-1	kV/mm	29
Comparative Tracking Index	-	IEC 112	V	450
Other data				
Water Absorption	23° C, Saturation	ISO 62	%	0.37
Moisture Absorption	23° C, 50 % r.H.	ISO 62	%	0.13
Melt Volume Rate (MVR)	250° C/2,16kg	ISO 1133	cm ³ /10 min	–
Density	23° C	ISO 1183	g/ccm	1.53
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 (≥10x10x4) mm
 6 Standard bar [125 x 13 x 0,8(1,6)] mm
 7 Bar (80 x 80 x 1) mm
 8 Specimen (≥15x15x4)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.

*Note: The material is made by Bada AG in germany and only used once in injection mould machine.

Thank you for your Attention!

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