Technical Data Sheet

Badamid® A70 GF30 TM-Z3

PA66-I GF30

Super impact modified glassfibres reinforced injection moulding grade for technical products with high toughness and stiffness

Properties	Test Conditions	Test Methods	Units	Dry as moulded	conditioned 23° C, 50% r.H.
Mechanical Properties					
Modulus of Elasticity, tensile	23° C, 1 mm/Min	ISO 527-1/2	MPa	8450	6200
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	140	100
Strain at Break [1]	23° C, 5 mm/Min	ISO 527-1/2	%	3,5	5,5
Bending Strength [2]	23° C	ISO 178	MPa	185	155
Charpy Impact Strength, unnotched [2]	23° C -30° C	ISO 179/1eU ISO 179/1eU	kJ/m2 kJ/m2	100 85	110 90
Notched Charpy Impact Strength [2]	23° C -30° C	ISO 179/1eA ISO 179/1eA	kJ/m2 kJ/m2	22 14	26 17
Izod notched Impact Strength [2]	23° C -30° C	ISO 180/1A ISO 180/1A	kJ/m2 kJ/m2	20 16	24 14
Thermal Properties					
Melting Temperature [3]	10 K/Min	ISO 3146	°C	262	*
Temperature of Deflection under Load [4]	0,45 MPa 1,8 MPa	ISO 75-1/2 ISO 75-1/2	°C °C	250 240	* *
Coefficient of Linear Thermal Elongation [5]	parallel direction transverse direction	DIN 53752 DIN 53752	E-4/K E-4/K	0,31 0,66	* *
Maximum Service Temperature	some hours 20 000 h 50 % Decrease in Tensile Strength or Yield Stress	- IEC 216	°C °C	195 105	* *
Flammability [6]	0,8 mm 1,6 mm	UL 94 UL 94	Class Class	H-B H-B	* *
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 [7]	1 MHz	IEC 250	-	3,5	5,5
Dissipation Factor [7]	1 MHz	IEC 250	E-4	140	1600
Specific Volume Resistivity [7]	-	IEC 93	Ohm cm	10^{15}	10^{12}
Specific Surface Resistivity [7]	-	IEC 93	Ohm	10^{12}	10^{10}
Dielectric Strength [7]	-	IEC 243-1	kV/mm	-	-
Comparative Tracking Index	-	IEC 112	V	500	*
Other data					
Water Absorption	23° C, Saturation	ISO 62	%	4,9	*
Moisture Absorption	23° C, 50 % r.H.	ISO 62	%	1,6	*
Density	23° C	ISO 1183	g/ccm	1,32	*
Processing					
Melt Temperature	-	-	°C	285- 305	*
Tool Surface Temperature	-	-	°C	60- 80	*
Drying Temperature	-	-	°C	80	*
Drying Time	-	-	h	2-4	*

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