Technical Data Sheet

Badamid® A70 WL

PA66

Polyamide 6.6 injection moulding grade unfilled / without reinforcement

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	3 150	1 600
Yield Stress [1]	23° C, 50 mm/Min	ISO 527-1/2	MPa	83	60
Yield Strain [1]	23° C, 50 mm/Min	ISO 527-1/2	%	4,5	21
Nominal Stress at Break [1]	23° C, 50 mm/Min	ISO 527-1/2	%	15	> 50
Stress at Break [1]	23° C, 5 mm/Min	ISO 527-1/2	MPa	*	*
Strain at Break [1]	23° C, 5 mm/Min	ISO 527-1/2	%	*	*
Bending Strength [2]	23° C	ISO 178	MPa	135	65
Charpy Impact Strength, unnotched [2]	23° C -30° C	ISO 179/1eU ISO 179/1eU	KJ/m2 KJ/m2	NB NB	NB -
Notched Charpy Impact Strength [2]	23° C -30° C	ISO 179/1eA ISO 179/1eA	KJ/m2 KJ/m2	6 4	14 6
Izod notched Impact Strength [2]	23° C -30° C	ISO 180/1A ISO 180/1A	KJ/m2 KJ/m2	5 3	11 3
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	190 80	* *
Coefficient of Linear Thermal Elongation [5]	längs quer	DIN 53752 DIN 53752	E-4/K E-4/K	0.85 -	* *
Maximum Service Temperature	some hours 20 000 h 50 % Decrease in Tensile Strength or Yield Stress	- IEC 216	°C °C	200 90	* *
Flammability [6]	0,8 mm 1,6 mm	UL 94 UL 94	Stufe Stufe	V-2 V-2	* *
Glow Wire Test	0,75 mm / 1,6 mm 0,75 mm / 1,6 mm	GWIT GWFI	IEC-60695-2-13 IEC-60695-2-13	- -	* *
Electric Properties					
Relative Permittivity [7]	1 MHz	IEC 250	-	3.6	5,0
Dissipation Factor [7]	1 MHz	IEC 250	E-4	250	2 000
Specific Volume Resistivity [7]	-	IEC 93	Ohm cm	10^{15}	10^{12}
Specific Surface Resistivity [7]	-	IEC 93	Ohm	10^{13}	10^{10}
Dielectric Strength [7]	-	IEC 243-1	kV/mm	32	26
Comparative Tracking Index	-	IEC 112	Stufe	600	-
Other data					
Water Absorption	23° C, Saturation	ISO 62	%	8.5	*
Moisture Absorption	23° C, 50 % r.H.	ISO 62	%	2.8	*
Density	23° C	ISO 1183	g/ccm	1.14	*
Processing					
Melt Temperature	-	-	°C	280 – 300	*
Tool Surface Temperature	-	-	°C	60 – 80	*
Drying Temperature	-	-	°C	80	*
Drying Time	-	-	h	2 – 4	

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