Technical Data Sheet

Badamid® PA12 GM30 H

>PA12-GF30<

30% milled glass fibre reinforced, heat stabilized PA12 injection moulding grade

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	4 000	*
Yield Stress [1]	23° C, 50 mm/Min	ISO 527-1/2	MPa	65	*
Yield Strain [1]	23° C, 50 mm/Min	ISO 527-1/2	%	4	*
Nominal Strain 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	-	*
Strain at Break [1]	23° C, 5 mm/Min	ISO 527-1/2	%	12	*
Bending Strength [2]	23° C	ISO 178	MPa	-	*
Charpy Impact Strength, unnotched [2]	23° C -30° C	ISO 179/1eU ISO 179/1eU	kJ/m2 kJ/m2	80 60	*
Notched Charpy Impact Strength [2]	23° C -30° C	ISO 179/1eA ISO 179/1eA	kJ/m2 kJ/m2	12 11	* *
Izod notched Impact Strength [2]	23° C -30° C	ISO 180/1A ISO 180/1A	kJ/m2 kJ/m2	- -	* *
Thermal Properties					
Melting Temperature [3]	10 K/Min	ISO 3146	°C	178	*
Temperature of Deflection under Load [4]	0,45 MPa 1,8 MPa	ISO 75-1/2 ISO 75-1/2	°C °C	170 135	*
Coefficient of Linear Thermal Elongation [5]	parallel direction transverse direction	DIN 53752 DIN 53752	E-4/K E-4/K	0,55 0,52	*
Maximum Service Temperature	some hours 20 000 h 50 % Decrease in Tensile Strength or Yield Stress	- IEC 216	°C °C	- -	*
Flammability [6]	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 [7]	1 MHz	IEC 250	-	-	-
Dissipation Factor [7]	1 MHz	IEC 250	E-4	-	-
Specific Volume Resistivity [7]	-	IEC 93	Ohm cm	10^{13}	*
Specific Surface Resistivity [7]	-	IEC 93	Ohm	-	*
Dielectric Strength [7]	-	IEC 243-1	kV/mm	38	*
Comparative Tracking Index	-	IEC 112	V	600	*
Other data					
Water Absorption	23° C. Saturation	ISO 62	%	1,1	*
Moisture Absorption	23° C. 50 % r.H.	ISO 62	%	0,5	*
Density	23° C	ISO 1183	g/ccm	1.24	*
Processing					
Melt Temperature	-	-	°C	220 – 240	
Tool Surface Temperature	-	-	°C	40-60	
Drying Temperature	-	-	°C	80	
Drying Time	-	-	h	6-8	

HongRong Engineering Plastics Co.,Ltd.
Head Office Tel. +85-2-6957-5415
Research Center Tel.+188 1699 6168