Technical Data Sheet

Badamid® PA12 FM-Z3

>PA12-HI-P<

High viscosity, PA12, flexible and plasticized grade for extrusion with high UV and heat stability

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	400	*
Yield Stress [1]	23°C, 50 mm/Min	ISO 527-1/2	MPa	26	*
Yield Strain [1]	23°C, 50 mm/Min	ISO 527-1/2	%	>150	*
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	-	*
Strain at Break [1]	23°C, 5 mm/Min	ISO 527-1/2	%	-	*
Bending Strength [2]	23°C	ISO 178	MPa	29	-
Bending modulus	23℃	ISO 178	MPa	475	*
Charpy Impact Strength, unnotched [2]	23°C -30°C	ISO 179/1eU ISO 179/1eU	kJ/m2 kJ/m2	Not break Not break	- -
Notched Charpy Impact Strength [2]	23°C -30°C	ISO 179/1eA ISO 179/1eA	kJ/m2 kJ/m2	Not break 12	- -
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	℃	174	*
Temperature of Deflection under Load [4]	0.45 MPa 1.8 MPa	ISO 75-1/2 ISO 75-1/2	℃ ℃	95 50	* *
Coefficient of Linear Thermal Elongation [5]	parallel direction transverse direction	DIN 53752 DIN 53752	E-4/K E-4/K	1,4 1,9	* *
Maximum Service Temperature	some hours 20 000 h 50 % Decrease in Tensile Strength or Yield Stress	- IEC 216	℃ ℃	150 90-100	* *
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^{15}	-
Specific Surface Resistivity [7]	-	IEC 93	Ohm	-	-
Dielectric Strength [7]	-	IEC 243-1	kV/mm	32	-
Comparative Tracking Index	-	IEC 112	V	600	-
Other data					
Water Absorption	23°C. Saturation	ISO 62	%	1.4	*
Humidity Absorbent	23°C, 50% Humidity	ISO 62	%	0,7	*
Density	23°C	ISO 1183	g/ccm	1.02	*
Shore hardness	-	ISO 868	D-scala	64	*
Rockwell hardness	-	ISO 2039-2	R-scala	*	*
MFI	190℃/1kg	ISO 1133	g/10min	*	*

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