



BADAMID® B70 S NATURAL 27

>PA6<

Easy flowing injection moulding grade

Properties	Test conditions	Test method	Unit	Dry as molded	Conditioned 23 ° C, 50 % r.h.
Mechanical Properties					
Tensile Modulus	23°C, 1 mm/Min	ISO 527-1/2	MPa	3300	1200
Tensile Strength at yield	23°C, 50 mm/Min	ISO 527-1/2	MPa	90	45
Tensile Strain at yield	23°C, 50 mm/Min	ISO 527-1/2	%	4	20
Nominal Strain at yield	23°C, 50 mm/Min	ISO 527-1/2	%	10	>50
Tensile Stress at break	23°C, 5 mm/Min	ISO 527-1/2	MPa	-	-
Tensile Strain at break	23°C, 5 mm/Min	ISO 527-1/2	%	-	-
Flexural Modulus	23°C	ISO 178	MPa	-	-
Flexural Strength	23°C	ISO 178	MPa	-	-
Charpy Impact Strength	23°C -30°C	ISO 179/1eU	kJ/m ² kJ/m ²	NB -	NB -
Charpy Notched Impact Strength	23°C -30°C	ISO 179/1eA	kJ/m ² kJ/m ²	8 6	- -
Izod Notched Impact Strength	23°C -30°C	ISO 180/1A	kJ/m ² kJ/m ²	7 6	- -
Thermal Properties					
Melting temperature	10 K/min	ISO 3146	°C	222	
Heat Deflection Temperature (HDT)	0,45 MPa 1,8 MPa 8 MPa	ISO 75-1/2	°C °C °C	180 65 -	
VICAT Temperature	VST A50 VST B50	ISO 306	°C °C	- -	
Coefficient of linear thermal expansion	Parallel Across	ISO 11359-2	E-4/K E-4/K	0,85 -	
Thermal conductivity	Test plate 2 mm	DIN 52612-1	W/(m*K)	-	
Maximum service temperature	some hours 20.000 h	IEC-60216	°C °C	180 70	
Flammability		UL94	Thickness (mm) / Rating	1,6/V2 -/- -/- -/-	
Glow wire test GWFI		IEC-60695-2-12	Thickness (mm) / Temp (°C)	-/- -/- -/- -/-	
Glow wire test GWIT		IEC-60695-2-13	Thickness (mm) / Temp (°C)	-/- -/- -/- -/-	



Electrical Properties					
Relative Permittivity	1 MHz	IEC-62631-2-1		3,3	7,0
Dissipation Factor	1 MHz	IEC-62631-2-1	10 ⁴	300	3000
Volume Resistivity	-	IEC-62631-3-1	Ω·cm	10 ¹⁵	10 ¹²
Surface Resistivity	-	IEC-62631-3-2	Ω	10 ¹³	10 ¹⁰
Dielectric Strength	-	IEC-60243-1	kV/mm	100	60
Comparative Tracking Index (CTI)	-	IEC-60112	V	600	-
Other Data					
Water Absorption	23°C, Saturation	ISO 62	%	9,5	
Moisture Absorption	23°C, 50% r.h.	ISO 62	%	3,0	
Density	23°C	ISO 1183	g/cm ³	1,13	
Melt Volume Rate (MVR)	Value Temperature Test Load	ISO 1133	cm ³ /10min °C kg	- - -	
Viscosity Number	0,5% in 96% H2SO4	ISO 307	cm ³ /g	140-155	
Relative Viscosity	-	ISO 1628	-	2,7 ± 0,1	
Processing Injection Molding					
Melt Temperature			°C	240-260	
Mold Temperature			°C	60-80	
Guide Value Moisture			%	<0,15	
Drying Temperature			°C	80	
Guide Value Drying Time			h	2-4	

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LEGEND

- not tested
- NB = No break

Based on our current state of knowledge, this data represents reference values and, unless otherwise stated, stands for uncoloured material. Therefore, it does not constitute a warranty of certain properties, more particularly it is no material specification. It is the responsibility of the processors to check the suitability of the material for a particular application as well as compliance with statutory regulations and intellectual property rights. The data stated above may be modified at any time without prior notice. The information does not imply any contractual obligation on our part, any liability is expressly excluded.