



GRODNO KHMIVOLOKNO
JOINT STOCK COMPANY
GRODNAMID

GRODNAMID PA6-HI-1

	Test method	Unit	Value	
RHEOLOGICAL PROPERTIES				
Melt Flow Rate (270°C, 2,16 kg load)	ISO 1133	g/10 min	20 – 30	
Molding shrinkage (60×60×2 mm)	ISO 294-4	%	1.2 – 2.0	
MECHANICAL PROPERTIES				
Tensile strength (20 mm/min)	ISO 527	MPa	55	
Elongation at break (20 mm/min)	ISO 527	%	85	
Tensile modulus (1 mm/min)	ISO 527	MPa	2200	
Flexural stress (2 mm/min)*	ISO 178	MPa	57	
Flexural modulus (2 mm/min)	ISO 178	MPa	2000	
Charpy impact strength (+23°C)	ISO 179/1eU	kJ/m ²	n. b.	
Charpy impact strength (– 30 °C)	ISO 179/1eU	kJ/m ²	n. b.	
Charpy notched impact strength (+23°C)	ISO 179/1eA	kJ/m ²	19	
Charpy notched impact strength (– 30°C)	ISO 179/1eA	kJ/m ²	12	
THERMAL PROPERTIES				
Melting point (10 °C/ min)	ISO 3146	°C	217	
Temp. of deflection under load	ISO 75-1/-2	°C	0.45 MPa	120 – 130
			1.80 MPa	40 – 50
Vicat softening point (50 °C/ h)	ISO 306	°C	–	
ELECTRICAL PROPERTIES				
Volume resistivity	IEC 60093	Ohm×m	10 ¹³	
Surface resistivity	IEC 60093	Ohm	10 ¹³	
Comparative tracking index	IEC 60112		–	
OTHER PROPERTIES				
Water absorption, %	Sim. to ISO 62	%	24h/23°C	1.8
			30 min at boiling	2.2
Moisture absorption from air	Sim. to ISO 62	%	2.5	
Density	ISO 1183	g/cm ³	1.09	

* – deflection equal to 1.5 times the thickness of the test specimen

n. b. – no break



CHARACTERISTICS

Impact modified PA6 based polymer composite material modified by olefinic polymers, elastomers and additives which improve molding properties. The kind is stability of service property (elasticity, flexibility and impact resistance) at low temperatures (down to -60°C). The material is heat stabilized.

APPLICATION

Producing fixture elements for the railway track, sports inventory parts, clamps, sealing and lining parts etc, for automotive industry. In separate case can be used as a substitute of ABS-plastic.

PREPROCESSING

Processing moisture content $< 0.2\%$.

If drying becomes necessary:

- drying in dehumidified dryer, drying temperature 80°C ,
- drying time is dependent on moisture level.

PROCESSING

Melt temperature $230 \div 260^{\circ}\text{C}$. To avoid degradation it is recommended to limit injection molding temperature to 290°C .

Injection pressure $80 \div 130\text{ MPa}$, recommended 80 MPa .

Mold temperature $50 \div 90^{\circ}\text{C}$. A higher mold temperature leads to higher shrinkage.

COLOUR

The material is available in pigmented version.

RECYCLING

Clean milled post production wastes could be recycled after mixing with fresh plastics. The amount of milled plastic added to natural plastic is controlled depending on final product quality requirements, it may reach up to 50% . Final product properties depend rather more on quality of recycled or milled polyamide than on its share. Attention shall be paid not to use milled scraps having more than 0.2% water.

PACKAGING

1) PET/ALU/PE bags with/without a degassing valve. The bags are stacked on a pallet with the following stretch-foiling. Bag weight: 25 kg net . Pallet weight: 1000 kg . Quantity to be loaded in a truck (82m^3) and $40''$ marine container: 20000 kg net (20 pallets).

2) Polyethylene bags with a valve. The valve is sealed with scotch film. The bags are stacked on a pallet with the following stretch-foiling. Bag weight: 30 kg net . Pallet weight: 960 kg / Bag weight: 25 kg net . Pallet weight: 1000 kg . Quantity to be loaded in a truck (82m^3) and $40''$ marine container: 20160 kg net (21 pallets) / 20000 kg net (20 pallets).

Data given are average values and should not be used for specification purpose.

In order to check the availability of products please contact our sales office.

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