



Grodno Azot

JOINT STOCK COMPANY

KHIMVOLOKNO

production and technical complex



POLYAMIDE 6 VIRGIN NON-HEAT STABILIZED

	Test method	Unit	Value
RHEOLOGICAL PROPERTIES			
Melt Flow Rate (230°C, 2,16 kg load)	ISO 1133	g/10 min	15 - 20
(270°C, 2,16 kg load)			45 - 55
Molding shrinkage (60×60×2 mm)	ISO 294-4	%	1.0 - 1.5
MECHANICAL PROPERTIES			
Tensile strength (25 mm/min)	ISO 527	MPa	72
Elongation at break (25 mm/min)	ISO 527	%	110
Tensile modulus (1 mm/min)	ISO 527	MPa	2600
Flexural stress (2 mm/min)¹	ISO 178	MPa	85
Flexural modulus (2 mm/min)	ISO 178	MPa	2500
Charpy impact strength (+23°C)²	ISO 179/1eU	kJ/m ²	n. b.
Charpy impact strength (-30°C)	ISO 179/1eU	kJ/m ²	80
Charpy notched impact strength (+23°C)	ISO 179/1eA	kJ/m ²	6.0
Charpy notched impact strength (-30°C)	ISO 179/1eA	kJ/m ²	5.0
Izod unnotched impact strength (+23°C)³	ISO 180/1U	kJ/m ²	n. b.
Izod notched impact strength (+23°C)	ISO 180/1A	kJ/m ²	5.0
THERMAL PROPERTIES			
Melting point (10 °C/min)	ISO 3146	°C	220
Temp. of deflection under load 0.45 MPa	ISO 75-1/-2	°C	130 - 135
1.80 MPa			63
Vicat softening temperature (50°C/h, 50 N)	ISO 306	°C	200
ELECTRICAL PROPERTIES			
Dielectric strength (thickness 1 mm)	IEC 60243-1	kV/mm	28
Volume resistivity	IEC 60093	Ohm×m	(1-3)×10 ¹³
Permittivity (1 MHz)	IEC 60250		3.3 - 3.6
Dissipation factor (1 MHz)	IEC 60250		0.02 - 0.03
OTHER PROPERTIES			
Flammability (1.6 mm)	UL 94		V-2
Water absorption, % 24h/23°C			3.0
30 min at boiling	Sim. to ISO 62	%	3.6
Density	ISO 1183	g/cm ³	1.12
Relative viscosity range (H ₂ SO ₄ 96.0±0.15%, 25.0±0.1°C)	-	-	2.70 ± 0.03
Viscosity number	ISO 307	cm ³ /g	140 - 155
Abbreviated term	ISO 1043	-	PA6
Temperature of continuous operation		°C	from - 30 to + 80

1 - deflection equal to 1.5 times the thickness of the test specimen

2 - pendulum energy 4.0 J

3 - pendulum energy 5.5 J

n. b. - no break



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CHARACTERISTICS

Granulated polyamide 6 with viscosity index 2.7.

APPLICATION

Used for compounding, for injection molding, for producing nylon industrial yarn.

PREPROCESSING

Processing (injection molding) moisture content < 0.20 %.

If drying becomes necessary:

- drying in dehumidified dryer, drying temperature (80±5)°C,
- drying time is dependent on moisture level.

PROCESSING

Melt temperature 230÷260 °C. To avoid degradation it is recommended to limit injection molding temperature to 290 °C.

Injection pressure 80÷130 MPa, recommended 80 MPa.

Mold temperature 50÷80 °C. A higher mold temperature leads to higher shrinkage.

COLOUR

Colour natural (semi-transparent).

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. Attention shall be paid not to use milled scraps having more than 0.2 % water and without contamination.

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 net. Quantity to be loaded in a truck (82m³) and 40" marine container: 20 000 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: 25 kg net. Pallet weight: 1000 kg net. Quantity to be loaded in a truck (82m³) and 40" marine container: 20000 kg net (20 pallets).

3) Soft specialized big-bags with PE insertion. Big bags are stacked on the pallets. Big-bag weight: 1000 kg net. Quantity to be loaded: in a truck (82m³) - 20000 kg net (20 big-bags) and 40" marine container: 20000 kg net (20 big-bags).

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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