

POLYAMIDE 6 VIRGIN NON-HEAT STABILIZED

MATERIAL DATA SHEET

Property denomination			VALUE
	TEST METHOD	UNIT	
RHEOLOGICAL PROPERTIES			
Melt Flow Rate	ISO 1133	g/10min	50-60
Moulding shrinkage (60x60x2mm)	ISO294-4	%	1.9 -2.2
MECHANICAL PROPERTIES:			
Tensile strength (25 mm/min)	ISO 527	MPa	70
Elongation at break (25 mm/min)	ISO527	%	100
Tensile modulus (1 mm/min)	ISO527	MPa	2400
Flexural stress (2 mm/min)*	ISO178	MPa	47
Flexural modulus (2 mm/min)	ISO178	MPa	2100
Charpy impact strength (+23°C)	ISO179/leU	Kj/m2	n.b.
Charpy notched impact strength (+23°C)	ISO179/leA	Kj/m2	9
THERMAL PROPERTIES:			
Melting Point (10°C/min)	ISO3146	C°	217
Temp. of deflection under load	ISO 75-1/-2	C°	120-130
0.45 MPa			
1.80 MPa			45-50
Flammability (1.6 mm)	UL 94		HB
ELECTRICAL PROPERTIES:			
Electric strength	IEC 60243-1	kV/mm	20.5
Volume resistivity	IEC 60093	Ohm x m	(1-3) x10 ¹³
Permittivity (1 MHz)	IEC 60250		3.3 -3.6
Dissipation factor (1 MHz)	IEC 60250		0.02-0.03



OTHER PROPERTIES:			
Water absorption, %	24h/23°C 30 min at boiling	Sim to ISO62	% 2.3 2.5
Density		ISO 1183	g/cm ³ 1.13
Relative viscosity range (H2SO4 96,0 ±0.15%, 25±0,1°C)			2.7±0.06
Temperature of continues operation			°C From-30 to+80

* – deflection equal to 1.5 times the thickness of the test specimen
n. b. – no break

CHARACTERISTICS

Granulated polyamide 6 with viscosity index 2.7.

APPLICATION

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

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 ÷ 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 ÷ 90 °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, 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 stretchfoiling.

Bag weight: 25 kg net. Pallet weight: 1000 kg. Quantity 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 pallet with the following stretchfoiling.

Bag weight: 30 kg net. Pallet weight: 960 kg / Bag weight: 25 kg net. Pallet weight: 1000kg. Quantity loaded in a truck (82m³) and 40' marine container: 20160 kg net (21 pallets) / 20,000 kg net (20 pallets).

3) Soft specialized big bags with PE or metallized (AL) insertions.

Big bags are stacked on the pallets. Big-bag weight: 1000 kg net. Quantity loaded: in a truck (82m³) – 20,000 to 22,000 kg (20-22 pallets) and 40' marine container: 20,000 kg net (20 big-bags).

