Poly PLASTY®

YOUR PRODUCER AND PROCESSOR OF PLASTICS

PolyPLASTY SUPPLIES FOR MANY FIELDS

- engineering
- car and transport technology
- medical technology
- semiconductor technology and electro technology
- aviation and cosmonautics
- Off-Shore
- food machines
- beverage technology and packaging
- building industry

WHY TECHNICAL PLASTICS?

- lubricity properties even without lubricants
- small mass density
- damping capacities
- not corrodible
- excellent design
- good insulating properties
- contact with foodstuffs possible
- abradability
- unsaturation
- non-clogging

PolyPLASTY PRODUCES A WIDE VARIETY OF PRODUCTS

- extruded or cast semiproducts
- cutting-operated components
- compressed components
- alkaline polyamides castings
- industrial profiles and pipes
- thermally insulating profiles
  distance frames and many others

DEVELOPMENT

- Thanks to our development centre we are ready to prepare for you a raw-material according to your needs

FIRM'S POLICY

- To remain a marketing-oriented company in which demands and wishes of the customers are the first priority.
- We boost usage of technical plastics in industry and commerce and offer to our customers individual solutions.
- We supply our customers with products and services which bring to them competition conveniences. Our solutions are pioneering, of top-quality, practical and economical.
- We are active worldwide. We strive for continuous growth, which is enabled thanks to always new products.
- We will do our best for harmonic and correct relations to our business partners. Our objectives are long-term and reliable business relations.
- Our company comprises committed and qualified colleagues.
- We contribute our share to environmental protection. Being citizens of the society and the state we shall think and act responsibly towards nature.

FIRM'S PROFILE

- Thanks to the orientation of its production, since the commencement of alkaline polyamide production in 1963 and cast polyurethane elastomers in 1965, the company has become a significant supplier of chemical plastics. The company further develops the traditions of the firm TANEX, Plasty a. s. and the new name of the company was introduced in 2004 within the new holding arrangement, when it became a 100% subsidiary company of TP Holding, a. s.
- Extensive investments into production technology, equipment and creation of logistic capacities are a solid platform for the company future perspectives.
- The tradition of production (the trademark PolyTAN has been existing since 1893) compels the company PolyPLASTY to take the quality and stability of supplies with a continuous development of products and services for granted. That is why the company has implemented a quality-control system in accordance to the ISO 9001 quality system. At the same time, the company is fully aware of its obligations in the field of ecology, which has been confirmed with a certificate in accordance to ISO 14001.

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Poly TAN® Poly POM® Poly PEEK® Poly PET® Poly ETHEN® Poly ROBID®
Poly JARID® Poly DEF® Poly FLON® Poly PLEX® Poly PROP® Poly VINOR®

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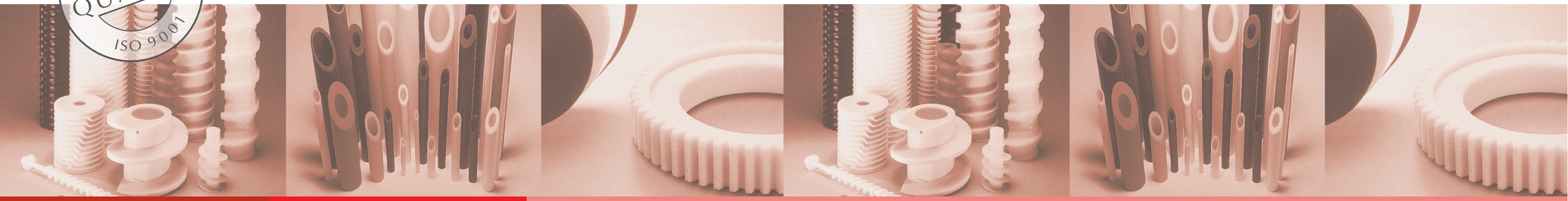
Poly JARID®

quality

perfectness

right choice

Poly JARID®



PolyJARID

Alkaline polyamide 6 aPA gained by alkaline polymerization of 6-caprolactam and its modifications.

PolyJARID is a registered trade mark of the firm PolyPLASTY s.r.o. It is a polyamide 6, moulded, (PA 6 G), which, thanks to its properties such as hardness, toughness and a little sliding resistance, meets the demands on the usage of constructional plastics. The most significant convenience is a noiseless operation of the components made from this very material.

These afore mentioned properties, as well as a rich gamut of offered semiproducts, predestine the PolyJARID for further expansion not only into mechanical engineering but also into other fields such as hauling machinery, metal industry, textile, mining, chemical, electrical industries and with respect to a possibility of its short-time contact with foodstuffs, it appears to be suitable for the food industry, too.

PACKING AND STORAGE

Packing of products from the material PolyJARID has to be specified in the contract between the producer and the customer. Czech Government Standard 64 00 90 Storage of Plastic Products is the effective standard for storage of PolyJARID products.

USAGE

Friction bearings, pin bushes, cogged and worm gears, pulleys, belt pulleys, guide gibs and cylinders, flanges, scrapers, handles, stops, slide parts of machines, shifting rollers, rubber rings and a myriad of other products.

CHEMICAL INERTNESS

PolyJARID is typical of its high inertness in alkaline environment (hydroxides, ammonia). Resistant to water and to acidic, alkaline and neutral salts. Moreover, PolyJARID is also resistant to oil products, toluene and benzene. This material is not resistant to concentrated acids (organic and inorganic) and to strong oxidizing agents.

PROCESSING

For machining it is necessary to use sharp tools only in versions designed for aluminium and bronze machining with usage of high cutting speed and a small movement.

So as to reach higher accuracy, it is necessary to machine gradually and slowly so that the material could cool down. For machining of bigger diameters we recommend a pilot drill.

After machining it is advisable to round off all inner edges in order to eliminate a risk of fracture.

Since the introduction of plastics into an every-day production we have been discovering new and new areas in which it is possible to use this material more and more. Thus, it is possible to replace wood, metals and glass in a larger extend.

Plastics are resistant to most of chemicals, corrosion and abrasion.

ALKALINE POLYAMIDE 6 APA

Properties	Unit	aPA	aPA 03 | 06	MaPA	HaPA	Antistatic
Hardness (+-5°C)	ShD	82/76*	78/72* | 76/71*	76/71*	82/76*	82/76*
Tensile strength	N/mm^2	min. 45	min. 40* | 35	min. 35*	min. 45	min. 45
Ductility	%	min. 40*	min. 45* | 50*	min. 50*	> 50%	> 20%
Impact strength - Charpy method	kJ/m^2	570 no failure*	470 | no failure no failure	no failure no failure	570 no failure*	570 no failure*
Inmpact value	kJ/m^2	3 10*/	4 10* | 38-12*	38-12*	25 kJ/m^2	4 kJ/m^2
Density	g/cm^3	1,15	1,15 | 1,14	1,14	1,14 g/cm^3	1,16g/cm^3
Coefficient of friction***		0,30-0,35	0,25-0,30	0,22-0,27	0,30-0,35	0,30-0,35
Thaw point	°C	220	218 | 218	218	220	220
Service temperature	°C	-30 +80	-30 +80	-30 +80	-30 +90	-20 +90
Linear thermal expans.	°C	8-10 . 10-5 | 9-11 . 10-5		9-11 . 10-5	8-10 . 10-5	8-10 . 10-5
Heat conductivity	Wm^{-1}K^{-1}	0,30-0,35 | 0,28-0,35		0,28-0,35	0,30-0,35	0,30-0,35
E-modulus in traction	MPa	3200 1900*	3400-3700 2000-2500*	3600-3900 2100-2600*	3200 1900*	3200 1900*
Water content balance	%	2,5* 7,2**	2,5* 7,5**	2,5* 7,5**	2,5* 7,5**	2,5* 7,5**
Relative linear d. change	%	0,85* 2,4**	0,85* 2,4**	0,85* 2,4**	0,85* 2,4**	0,85* 2,4**

WE SUPPLY SEMIPROD.

Pressure bars
Diameter up to 90 mm, length 1000 mm (holds for types aPA, aPAC1, aPA 03, aPA 06, aPAEC, HaPa

Blocks machined
Diameter 30up to 90 mm, l ength 300 mm (holds for type MAPA) Holds for all types

Blocks unmachined
Diameter 210 up to 400 mm, length 350 mm. Holds for all types

Pipes
Diameter 81/50 up to O475/440, length 1000 mm

Desks
880 x 320 x 50 up to 130 mm
1000 x 500 x 10 up to 80 mm

Prisms:
From 10 x 10 mm, up to lengths 1000 mm

Shaped products according to your wishes and technical possibilities.
Generally elements with mass of 0,5 kg up to 200 kg.

Types

JARID aPA	Standard type, natural colour
JARID aPA 03 I 06	Standard type and 3% of oil, improved lubricity properties, natural colour
JARID aPA 06	Standard type and 6% of oil, dramatically improved lubricity properties, natural colour
JARID aPA C1-C4	Standard type, C1 = black, C2 = red, C3 = yellow, C4 = blue
JARID aPA 03|06 C1-C4	Standard type and 3% of oil, improved lubricity properties, C1=black, C2=red, C3=yellow, C4=blue
JARID MaPA	Modified type aPA of improved impact properties and inner structure
JARID ANTISTATIC	Alkaline polyamide of antistatic properties
JARID HaPA	Tough type aPA for flexibility improvement, the material does not split (break)
JARID aPA MO	Alkaline polyamide with MoS_2 allowance for lubricity properties improvement and good tensile strenght

Notice: Standard color types can be changed or enriched upon customer's agreement.

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