

PA4.6 - polyamide 4.6

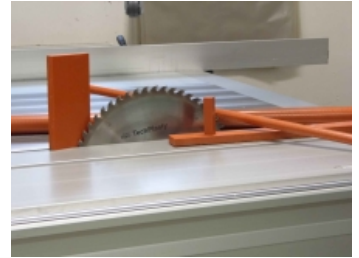
Other material names PA4.6: Polyamide 46, 4/6, 4.6

Material group: Polyamide

Special Polyamide 4.6 offers higher rigidity and creep resistance over the entire temperature range compared to conventional polyamides. This makes it especially suitable for applications ranging from 80 to 150 degrees Celsius where it provides us with significantly higher stiffness, wear and creep resistance such as PA6G, POM-C or PET material.

Color of material:

Brown



Typical applications:

- machine parts with increased heat resistance
- gears
- pulleys
- cases



The material is used in:

Electrotechnical industry
Packaging industry
Engineering industry
Steel industry
Production of single-purpose machines

Features:

- Broadest size range availability
- Good mechanical and electrical properties
- Ideal balance of strength and toughness
- Cast as finished parts and near net shapes

Material availability: Production only on request

Material properties table

Specific weight	1.18 g/cm ³
Yield strength	100 N/mm ²
Allowable mean pressure deformation 1%	23.00 N/mm ²
Allowable mean pressure deformation 2%	45.00 N/mm ²
Allowable mean pressure deformation 5%	94.00 N/mm ²
Flexural strength	150 N/mm ²
Tensibility	25 %
Flexural modulus	3 200 N/mm ²

Tensile modulus	3 300 N/mm ²
Impact toughness	bez zlomu
Notched toughness	>8 kJ/m ²
Ball hardness	165 N/mm ²
Friction coefficient	0.35
Antistatic material	No
Permittivity	3.80
Electrical strength	25 kV/mm
Specific internal resistance	10 ¹⁴ Ω
Specific surface resistance	10 ¹³ Ω.cm
Melting point	295 °C
Thermal expansion	9 10 ⁻⁵ /K
Thermal conductivity	0.30 W/(K.m)
Permanent use temperature	-40 ; 155 °C
Transient temperature of use	-40 ; 200 °C
Absorbability	2,8 %
Water absorption	9,5 %
Resistance - oils	resistant
Acid resistance	conditionally resistant
Durability - alcali	conditionally resistant
Food contact	No
Special features	Highest heat resistance of PA materials

Engineering plastics are supplied in the form of bars, plates, strips, tubes and sheets. From the semi-finished products the company TechPlasty has regularly in stock, we also supply blanks.

All standard and special materials are designed to meet your specific requirements. Their mechanical, thermal, and electrical properties and chemical resistance satisfy the most demanding requirements and this allows them to work even in the most difficult conditions. If you need advice when choosing the appropriate material for your application, please contact us. We'll gladly advise you. You can utilize the long-term experience of our technical advisors free-of- charge, who can visit you right in your operation and solve your requirements for engineering plastics directly at the site of their usage.

TechPlasty, s.r.o.

Kysucká 7/A
010 01 Žilina
Slovakia

