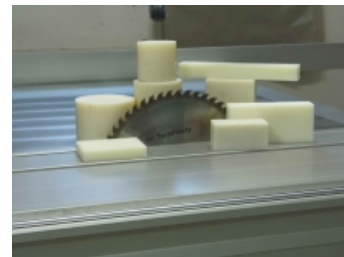


PA12G - cast polyamide 12

Other material names PA12G: Cast Nylon Polyamide 12

Material group: Polyamide

PA12G natural is a semi crystalline polyamide 12 with very high toughness and good chemical resistance, with reduced sensitivity to stress cracking. The PA12G properties include the lowest water absorption characteristics of all polyamides, which means any parts made from PA12G should remain stable in humid environments. In addition to this, PA12G also has good impact resistance, good slide friction properties, and good wear resistance. Compared to other polyamides, PA12G has one of the lowest melting points available at 180°C.



Typical applications:

- aircraft and aerospace technology
- electronics
- food technology
- mechanical engineering
- automotive industry

Features:

- high toughness
- good wear properties
- resistant to many oils, greases and fuels
- high dimensional stability
- good slide and wear properties
- low density
- low moisture absorption
- good weldable and bondable

Material availability: Production only on request

Material properties table

Specific weight	1.03 g/cm ³
Yield strength	60 N/mm ²
p.v dry limit	0.10 MPa.m/s
Flexural strength	90 N/mm ²
Tensibility	55 %
Flexural modulus	1 500 N/mm ²
Tensile modulus	2 000 N/mm ²
Impact toughness	bez zlomu
Notched toughness	>15 kJ/m ²
Ball hardness	100 N/mm ²
Friction coefficient	0.32
Sliding wear	0.80 um/km
Abrasive wear	260
Antistatic material	No
Permittivity	3.50
Electrical strength	20 kV/mm
Specific internal resistance	10 ⁽¹⁴⁾ Ω
Specific surface resistance	10 ⁽¹³⁾ Ω.cm
Melting point	179 °C
Thermal expansion	10 10 ⁽⁻⁵⁾ /K

Thermal conductivity	0.23 W/(K.m)
Permanent use temperature	-60 ; 80 °C
Transient temperature of use	-60 ; 140 °C
Absorbability	0,9 %
Water absorption	1,4 %
Resistance - oils	resistant
Acid resistance	conditionally resistant
Durability - alcali	resistant
Food contact	No

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.

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