

# PA-12

PA-12 is our high-performance nylon filament with a broad range of mechanical and chemical properties. These properties include, but are not limited to, high impact (even at low temperatures), crack & scratch resistance, food water contact acceptable, superior chemical & weathering resistance backed by a very low water absorption and excellent dimensional stability. PA-12 is the perfect nylon filament for the (semi) professional print user who is looking for the perfect combination of printability and mechanical properties. PA-12 is one of the best solutions for industrial grade applications that need to last.

## Features:

- High-performance industrial grade nylon
- Strong & flexible
- High impact, abrasion, crack & scratch resistance
- Superior chemical & UV resistance
- Excellent dimensional stability
- Low water absorption

## Colours:

Check the website for available colours.

Filaments specifications		
Size	Ø tolerance	Roundness
1,75mm	± 0,05mm	≥ 95%

Material properties		
Description	Testmethod	Typical value
Specific gravity	ISO 1183	1,02 g/cc
MFR 280°C/2,16 kg	ISO 1133	15 cm <sup>3</sup> /10 min
Tensile strength at yield	ISO 527	60 MPa
Strain at yield	ISO 527	8%
Strain at break	ISO 527	>150%
Tensile modulus (E-Modulus)	ISO 527	1400 MPa
Flexural modulus	ISO 178	1700 MPa
Flexural strength	ISO 178	90 MPa
Impact strength - charpy method 23°C	ISO 179	14 kJ/m <sup>2</sup>
Moisture absorption	ISO 62	3,5%
Printing temperature	ddd drop	260-275°C
Melting point	ISO 11357	250°C
Shore D hardness	ISO 868	81

## Additional info:

PA-12 needs to be dried for good 3D print results. A standard air-circulated oven is sufficient. A guideline for drying is 60 °C for ± 8 hours. Recommended temperature for heated bed is 110-130 °C or even higher. PA-12 will not bond perfect to glass, but adheres well to a variety of 'print stickers' and other bed adhesives. We recommend the use of Dimafix spray or liquid to improve the bonding.

Storage: Cool and dry (15-25 °C) and away from UV light. This enhances the shelf life significantly.