

PrintaMent PA12

DATASHEET

Description

PA12 is a high-performance polyamide filament which natural colour is crystal clear. The polymer nylon PA12 is widely used in the automotive, machinery and engineering industry since it combines mechanical strength, flexibility, transparency, UV resistance and superior chemical resistance. PA12 is easy to print, has a high impact strength, even at low temperatures, a very high glass transition temperature and has a low water absorption compared with other polyamides which leaves the mechanical properties unaffected. PA12 is the filament to print objects with a top performance.

Features

- Strong & flexible
- Crystal clear natural colour
- Superior chemical & UV resistance
- Low water absorption

Colors

Clear – Black – White

Additional Info

PA12 NYLON needs to be dried for good 3D print results, A standard air-circulated oven is sufficient. A guideline for drying is 4-6 hours at 60°C for 100g. Recommended temperature for heated bed is $\pm 100-110^\circ\text{C}$ or even higher. PA12 will not bond to glass,

but adheres well to masonite, poplar wood or blue painters tape. PA12 can be used on most common desktop FDM or FFF technology 3D printers. Storage: After use store Cool and dry (15-25°C) and away from UV light. This enhances the shelf life significantly.

Technical Data

Dimensions

Size	Tolerance	Roundness
Ø1,75mm	$\pm 0,05\text{mm}$	>95%
Ø2,85mm	$\pm 0,10\text{mm}$	>95%

Physical Properties

Description	Typical Value
Specific gravity	1,05 g/cc
Viscosity number (in relation to PA12)	160 \pm 10 cm ³ /g (medium viscous)
Tensile strength	58 Mpa
Strain at break	>100%
Tensile modulus	2020 MPa
Impact strength Charpy method 23°C	Unnotched No B Notched 13 KJ/m ²
Shore D Hardness	84

Thermal Properties

Size	Roundness
Printing temp.	240-275°C
Melting temp.	250 \pm 10°C
HDT 264psi.annealed	105°C