

# HP 3D High Reusability PA 12

Material Introduction



## Introduction

The material is a Gray polyamide 12 with high-temperature resistance, good toughness, and high strength, which is suitable for functional verification of product prototypes.



## Advantages

The perfect combination of exquisite details and ultra-high dimensional accuracy can produce extremely fine small holes, thin walls, shanks, solid structural parts, complex parts, and lattice structural parts, thus producing high-quality parts.

## Disadvantage

Grainy surface, more expensive.

## Tolerance

200 $\mu$ m or 0.2%

## Recommendation

High heat distortion temperature and high strength, can be used as functional parts.

## Attention >

Grainy surface please notice that in advance.If you have higher requirements on strength and temperature resistance, please choose Fiberglass for verification.

## Attributes

Heat deformation: (0.45 MPa) (GB/T 1040.2-2006): 145 °C

Heat deflection temperature (1.8 MPa) (GB/T 1040.2-2006) : 82 °C

Melting point: 183 °C

Tensile strength (GB/T 1040.2) : 46 MPa

Tensile modulus (GB/T 1040.2) : 1600 MPa

Breaking elongation rate (GB/T 1040.2): 36%

Bending strength (GB/T 1040.2): 46.3 MPa

Flexural modulus (GB/T 1040.2): 1300 MPa

Notch impact strength (GB/T 1843) : 4.9 KJ/m<sup>2</sup>

Unnotched impact strength (GB/T 1843): 13.2 KJ/m<sup>2</sup>

Dielectric constant 60 Hz: 3.5

## Applications

- > Structural verification of auto parts and their supplies  
Car bezels, rearview mirrors, dashboards, steering wheels, lights, seats, handles, etc.
- > Structural and functional verification of household appliances  
Air conditioner, air purifier, vacuum cleaner, electric fan, ironing machine, water dispenser, juicer, hair dryer, etc.
- > Structural and functional verification of digital electronic products  
Laptops, tablets, mobile phones, digital cameras, game consoles, audio, MP3, mobile power, etc.
- > Structural and functional verification of electro mechanical equipments  
Industrial display panels, cameras, switches, sockets, power tools, electrical instruments, experimental instruments, measuring tools, etc.

➤ Structural and functional verification of artwork and toys

Graduation design works, lighting, interior decorations, toys, dolls, etc.