



Print date: 19-06-2023

Version: 1.0

Product specifications

Python Flex TPU 90A is an easy to 3D print flexible filament. With a shore hardness of 90A this filament is much softer than our Python Flex TPU 98A. This in more flexible parts with good elastic properties.

Python Flex TPU 90A shows good adhesion to the print bed and between layers. It is an industrial-grade TPU with outstanding properties. It shows not only great resistance to wear, tear, and abrasion. This flexible filament also features good resistance to chemicals and UV radiation.

Important key features

- Flexible with a shore hardness of 90A.
- Elongation up to 500%.
- Good resistance to chemicals and oils.
- Resistant to wear, tear, and abrasion.
- Thermal resistance up to 74°C.

Suitable applications

- Manufacturing seals and gaskets.
- Protective bumpers and vibration dampers .
- Snap-fit applications.
- Various Orthopedic applications.
- 3D printing sleeves and hinges.

Material properties

Density

Typical value

1.22 g/cm³

Test Method

DIN 53479

Mechanical properties

Shore hardness

90A

DIN 53505

Tensile strength (MD)

35 MPa

DIN 53504

Elongation at break (MD)

500%

DIN 53515

Tear strength (MD)

90 N/mm

DIN 53515

Abrasion resistance

35 mm³

DIN 53516

Thermal properties

HDT-B

74°C

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Drying recommended

TPU is a hygroscopic thermoplastic material and will attract and hold water molecules from the surrounding environment. For optimal printing results it is recommended to dry the filament before usage and even 3D print from a dry box for larger prints. This will ensure optimal material properties.

Storage and handling

Filament should be stored at room temperature in a dry and dark place with humidity below 15%. Recommended storage temperature is ca. 18-25°C (64.4 -77.0°F). Keep out of moisture, sunlight and direct heat. When stored properly, product has a shelf life of at least 24 months. To obtain the best parameters of the printed object, it is recommended to dry the material prior to usage and to 3D print it directly from a dry box.

Product export information

HS Code

39169090

Description

Monofilament for 3D printing

Origin

European Union

Disclaimer

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