

# FLEX 45

FLEX 45 is a very flexible rubber replacing filament for 3D printing. The combination of flexibility, mechanical strength, durability and good resistance to chemicals and extreme temperatures makes it a unique filament. This bio-based performance Thermoplastic Co-Polyester has a high carbon content of renewable materials resulting in less environmental impact. Finally FLEX 45 exhibits excellent UV resistance.

## Material features:

- Very flexible
- Strong
- Long term heat resistant
- Good chemical resistance
- UV resistant



## Colours:

FLEX 45 is available from stock in 5 colours. Other colours on request



## Packaging:

FLEX 45 is available in nearly any type of packaging and labelling. Ask our team to help you customizing your product

## Filament specs.

Size	Ø tolerance	Roundness
1,75mm	± 0,05mm	≥ 95%
2,85mm	± 0,10mm	≥ 95%

## Material properties

Description	Testmethod	Typical value
Specific gravity	ISO 1183	1,14 g/cc
MFI 260°C/5 kg	ISO 1133	52 g/10 min
Tensile strength at break	ISO 527	24 MPa
Elongation strain at break	ISO 527	530%
Tensile (E) modulus	ISO 527	95 MPa
Impact strength - Charpy notched 23°C	ISO 179 1eA	N.B.
Printing temp.	Internal method	250±10°C
Melting temp.	ISO 11357	180°C
Vicat softening temp.	ISO 306 B50	38°C
Shore hardness	ISO 868	45D

## Additional info:

Recommended temperature for heated bed is  $\geq 100^{\circ}\text{C}$ . Various other options (also without heated bed) are possible depending on the type and size of the object to be printed. FLEX 45 can be printed better at a lower speed, due to its flexibility. FLEX 45 can be used on most common desktop FDM or FFF technology 3D printers. Storage: Cool and dry (15-25°C) and away from UV light. This enhances the shelf life significantly

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