



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 ≥ 100 °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

"The values presented in this publication are based on MCPP's knowledge and experience and are intended for reference purposes only. While MCPP has made every reasonable effort to ensure the accuracy of the information in this publication, MCPP does not guarantee that it is error-free, nor does MCPP make any other representation, warranty or guarantee that the information contained herein, at any time without notice. MCPP expressly disclaims warranties of any kind regarding the information contained herein, including, but not limited to, any warranties of merchantability or fitness of a particular purpose, use or application. MCPP shall not be liable for any damage, injury or loss induced from the use of MCPP's products in any application. Each user should thoroughly review this publication before selecting a product and, in view of the many factors that may affect processing and application of the product, each user should carry out their own investigations and tests and determining the safety, lawfulness, technical suitability, proprietary rights, and disposal freely institute of the materials for the intended application."