

# 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 performance Thermoplastic Co-Polyester has a high carbon content of renewable materials resulting in less environmental impact. Finally FLEX 45 exhibits excellent UV resistance.

#### Features:

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





## **Dimensions**

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

Physical properties

1 Hysical properties					
Description	Testmethod	Typical value			
Specific gravity	ISO 1183	1,14 g/cc			
Melt volume flow rate	ISO 1133	39 cm <sup>3</sup> /10 min			
Stress at break	ISO 527	24			
Strain at break	ISO 527	%530,00			
Tensile modulus	ISO 527	95 MPa			
Impact strength	ISO 179	Notched			
Charpy method 23°C		No break			
Shore D Hardness	ISO 868	45			

Thermal properties

	Description	Testmethod	Typical value
S	printing temp.	-	220 <i>-</i> 260° C
	melting temp.	ISO 11357	180°C

#### Colours:

FLEX 45 is available from stock in 5 colours. For other colours a minimum of  $30 \text{kg} \pm 10\%$  is required.











### Packaging:

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

### **Additional info:**

Recommended temperature for heated bed is  $\pm$  100 $^{\circ}$ 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.

www.amtech3d.com info@amtech3d.com sales@amtech3d.com **Operations Office** 5th Settelment, New Cairo, Cairo, Egypt T: 025633702