

# 3DP FLEX 45

FLEX 45 is a highly 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 also exhibits excellent UV resistance

## Features:

- Very Flexible
- Strong
- Long Term Heat Resistant
- Good Chemical Resistance
- UV Resistant

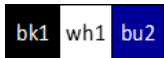
## Normal Stock:

- 2.85 dia (+/- 0.10mm)
- Roundness  $\geq 95\%$
- 2.2 kg (5 lb.) spools

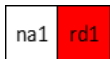
Contact 3DP for other spool sizes and diameter filaments: Diameters available - 1.75mm, 4.5mm, 6mm



Colors normally in stock:



Check stock on these colors prior to order:



Material Properties		
Description	Test Method	Typical Value
Specific Gravity	ISO 1183	1.14 g/cc
MFR 260°C/5 kg	ISO 1133	39 cm <sup>3</sup> /10 min
Tensile Strength at Break	ISO 527	24 mpa
Strain at Break	ISO 527	530%
Tensile Modulus	ISO 527	95 mpa
Impact Strength - Charpy Notched 23°C	ISO 179	N.B.
Printing Temp. Range	DF	220 - 260°C
Melting Temp.	ISO 11357	180°C
Vicat Softening Temp.	ISO 306	38°C

3DP WorkSeries Machine Settings	
Description	Setting
Volcano Extruder Default Print Speed	30 mm/s
HFA Extruder Default Print Speed	30 mm/s
Unspecified Machine Default Print Speed	30 mm/s
Extruder Temp. (Starting Point)	215°C
Heated build Platform Temp.	100°C
Bed Prep.	Beer
Extrusion Multiplier/Flow Rate	100%
Fan Speed	100%
Active Cooling (Fan)	Y
Retraction Distance	3.50 mm

## Additional info:

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 FFF technology 3D printers.

Storage: Cool and dry (15 - 25°C) and away from UV light. This enhances the shelf life significantly