

## Flexfill TPE 90A

### Description:

New member of Fillamentum Flexfill family is unique in its properties in comparison with Flexfill TPU materials.

The main difference caused by the very different polymer base is in chemical resistance. It has chemical resistance against wide range of substances. This makes it perfect material for sealings of most of substances even at higher temperatures. This material has very low gas permeability.

Flexfill TPE's mechanical behaviour is influenced by the necking creating while stressed in tensile. This filament has great flexibility. High tear resistance is insured thanks to good layer adhesion.

The surface of material is very pleasant to touch. Thanks to its great layer adhesion, the objects have very smooth surface. This finish is great to avoid any sticking of dirt.

This material can be used for production of electrical and electronic equipment. It doesn't contain the restricted substances. The filament complies with the requirements for food contact applications. It is safe for applications in contact with skin or mucous membrane.

For flexible materials, Fillamentum can guarantee maximum deviation of diameter +/- 0,10 mm. During the production, filament is made with the best stability of diameter, roundness and colour.

Workability of 3D printing filament is at least 12 months from delivery.

The information was processed with the best knowledge of the manufacturer and it is for information only.

Physical Properties	Typical Value	Test Method	Test Condition
Material density	1,15 g/cm <sup>3</sup>	ISO 1183	20 °C
Melt flow index	> 25 g/10 min	laboratory method	230 °C, 5 kg
Diameter tolerance	± 0,10 mm		

Weight  
500 g of filament  
(+ 250 g spool)

Mechanical properties	Typical Value	Test Method	Test Condition
Tensile strength	> 5 MPa	laboratory method	at break
Elongation at break	> 250 %	laboratory method	at break
Hardness	90 Shore A	laboratory method	
	30 Shore D	laboratory method	

Chemical properties	Typical Value	Test Method	Test Condition
Polymer base	polyolefin		
Resistance against water, acetone, acids, alkalis, alcohols	good		25 °C
Resistance against oils, greases, car fluids, ozone	bad		25 °C

Printing properties	Recommended	Notes
Print temperature	225-245 °C	Recommended settings! It may differ according to the printer and the object.
Hot pad	50-60 °C	Try your own settings before printing.
Bed adhesive	Magigoo PP, 3DLac	Use brim for better bed adhesion.
Type of bed	PEI, mirror/glass	
Speed of printing	15-25 mm/s	