

Technical datasheet

varioShore Prosthetic TPU

color**Fabb**

Date of issue: March 14, 2023
Version: v1.0

ColorFabb varioShore Prosthetic TPU is a high quality expanding TPU 3D printing filament with base Shore hardness of 92A. The active foaming technology can be used to achieve light weight, soft touch prosthetics and lower Shore hardness's. At around 230C this material will start foaming, increasing its volume 1.4 - 1.6 times. Users can use lower flow rates (60-70%) to achieve light weight prosthetic parts, or use the foaming properties to effectively lower the Shore hardness of their TPU parts.

TYPICAL MATERIAL PROPERTIES

Physical properties	Unit	Value	Method
Density	g/cm ³	1,22	ASTM D-792
Glass transition temperature	°C	-20	DSC
Hardness	Shore A	92	ASTM D-2240
Tensile Strength	MPa	58,6	ASTM D-412
Ultimate Elongation	%	490	ASTM D-412
Density	g/cm ³	1,22	ASTM D-792
Glass transition temperature	°C	-20	DSC

FILAMENT SPECIFICATION

Nominal diameter:	Diameter tolerance	Ovality
1,75 mm	± 0,10	≥ 95%
2,85 mm	± 0,10	≥ 95%

GUIDELINE FOR PRINT SETTINGS

Nozzle temperature	190 - 250°C
Bed temperature	20 - 40°C
Bed surface / modification	Tape or glue
Active cooling fan	Least amount of cooling as possible. For better overhangs use 50 - 100%
Print speed	20 - 30 mm/s

Disclaimer

The product- and technical information provided in this datasheet is correct to the best of our knowledge. The information given is provided as a guidance for good use, handling and processing and is not to be considered as a quality specification. The information only relates to the specific product and the material properties.