

## Puros.I

Puros.I is a world-leading skin safe and highly soft 3D printing FDM filament. Whilst not only being one of the most flexible filaments on the market, Puros.I also combines a high tensile strength and high elongation, and is hard wearing with enhanced printability. The first FDM filament of its kind globally to use materials with medical approval. It is perfectly suitable for use in applications where contact with skin, food and drinking water is necessary.

### Tech Specs

Physical Property	Value	Unit	Test Method
Specific Gravity	1.10	Gr/cm <sup>3</sup>	DIN 53479
Shore Hardness	77	A	DIN 53505
Tensile Strength	41	N/mm <sup>3</sup>	DIN 53504
Elongation at Break	700	%	DIN 53504
Abrasion Loss	35	mm <sup>3</sup>	DIN 53516
Tensile Modulus 50%	3.6	N/mm <sup>3</sup>	DIN 53504
Tensile Modulus 100%	5	N/mm <sup>3</sup>	DIN 53504
Tensile Modulus 300%	9.1	N/mm <sup>3</sup>	DIN 53504
Tear Strength	55	N/mm	DIN 53515
Compression Set 70hr/23°C	22	%	DIN 53517
Compression Set 22hr/70°C	50	%	DIN 53517
VICAT Softening Point	70	°C	ISO 306

### Features

- Enhanced resistance to hydrolysis
- Superior resistance to microbiological attack
- UV resistance
- Custom colour matching - including skin tones
- High flexibility
- Suitable for sterilisation

### Approvals

- USP medical Class VI (skin safe)
- EC and FDA food contact approved
- NSF 61 for drinking water approved
- ISO 10993

### Filament Parameters

Processing Temp:	00-222°C
Tolerance:	+/-0.05mm
Heated Bed Temp:	Not needed
Cooling:	0 to 50%
Layer Height:	0.1 or 0.2 mm
Print Speed:	30 to 60 mm/s