



Technical data sheet

TPE

The TPE is a flexible medical grade filament made of thermoplastic elastomer. This filament is made from granules with ISO 19993-5 certification. This thermoplastic has a shore of 88A which will make it possible to make flexible 3D parts such as orthopedic devices and contact parts in interface with rigid parts of orthoses or prostheses.



Identification of the product

| | |
|---------------|-------------------------------|
| Product | TPE - ThermoPlastic Elastomer |
| Reference | PF-TPE |
| Technology | FDM - Filament Deposition |
| Diameters | 1.75 mm |
| Color | White |
| Rigidity | Flexible |
| Sterilization | Gamma ray / EtO |

Benefits

- Extremely flexible
- Great resistance to shocks

Applications

- Orthopedic devices
- Flexible surgical models

Technical properties

| TESTS | SECURITIES |
|--------------------------|--------------|
| Blending range | 150-165°C |
| Glass transition | < ambient T° |
| Degradation temperature | >250°C |
| Maximum train (traction) | 12 MPA |
| Elongation at break | 1600 % |
| Shore hardness | 88 A |

Print properties

| | |
|----------------------|------------|
| Printing temperature | 220-240°C |
| Tray temperature | 60 - 80°C |
| Print speed | 10-40 mm/s |
| Cooling fan speed | 50 - 100 % |

Indication for use

The TPE is compatible with most 3D printers equipped with a heating bed and can receive 1.75mm filament. However, we recommend the use of a printer equipped with a direct drive system.

Warning: Under no circumstances can this product be implanted in humans. Lattice Services assumes no responsibility for the medical use of this product.

Disclaimer

The values presented in this document are for reference and comparison purposes only. This data may vary depending on printing conditions, materials, part design, environmental conditions, and should not be used for specification or quality control purposes.

Each user is responsible for compliance with the safety standards of the product and its employees, its use, respect for the environment, waste disposal and recycling rules. Lattice Services makes no warranty, unless separately stated, as to fitness for any use or application.

Lattice Services shall not be liable for any damage, injury or loss resulting from the use of these materials in any application.

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