

TPE

TECHNICAL DATA SHEET

TPE is a medical-grade flexible filament made from thermoplastic elastomer. The filament is made from ISO 1993-5-certified granules. This thermoplastic has a shore rating of 88A, making it ideal for flexible 3D parts such as orthopedic devices and contact parts interfacing with rigid parts of orthoses or prostheses.

PRODUCT IDENTIFICATION

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

ADVANTAGES

- Extremely flexible
- High impact resistance

APPLICATIONS

- Orthopedic devices
- Flexible surgical models

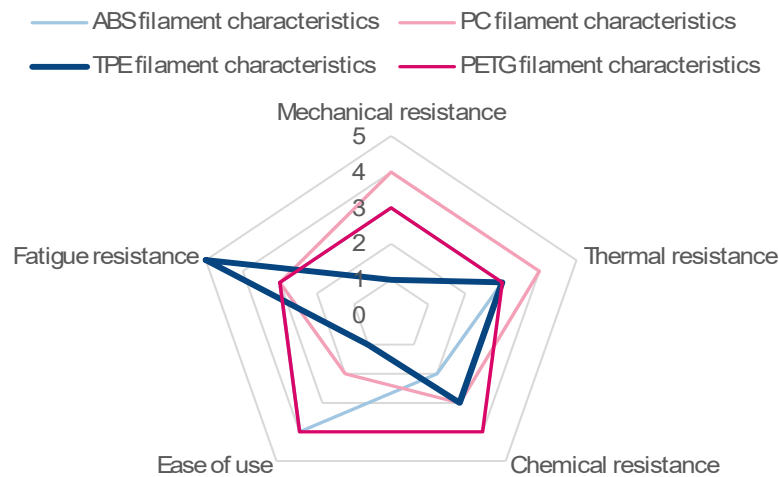
TECHNICAL PROPERTIES

Melting range (DSC, 10°C/min)	150-165°C
Glass transition	< ambient T°
Degradation temperature	>250°C
Maximum stress (tensile)	12 MPA
Elongation at break	1600 %
Shore hardness	88 A
Young's modulus	~ 18,82 MPA

PRINTING PROPERTIES

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

PERFORMANCE PROFILE OF OUR FILAMENTS



USE INDEX

The TPE is compatible with most 3D printers equipped with a heating plate and able to accept 1.75mm filament. However, we recommend using a printer equipped with a direct drive system.

Warning: The source material has been evaluated according to ISO 10993-5 (cytotoxicity) only. It is not intended for implantable use. In the event of transformation (e.g. 3D printing), the user must ensure the absence of contamination and the compatibility of the finished product with its final application.

DISCLAIMER OF LIABILITY

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

Each user is responsible for compliance with product and employee safety standards, for use of the product, and for compliance with environmental, waste disposal and recycling regulations. Lattice Services gives no warranty, unless separately stated, as to suitability for any particular 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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