PDO DIOXACTISSE 100 TECHNICAL DATA SHEET

Lattice Services
IMAGINE.PRINT.HEAL.

PDO or polydioxanone is a white, semi-crystalline thermoplastic. Once implanted, it quickly resorbs within 4 to 6 months. Although highly crystalline, the polymer has a glass transition temperature below room temperature, which guarantees a certain flexibility. As a result, this material is widely used to make sutures, mesh textiles, tissue engineering scaffolds, etc.

PRODUCT IDENTIFICATION

Product	PDO 100 – Polydioxanone
Reference	PF - PDO
Technology	FDM - Filament deposition
Diameters	1.75 mm - 2.85 mm
Color	White
Storage	After opening, store in a dry, ventilated place. Vacuum-pack coils in a dry place. If hermetically sealed, store in a refrigerator at 4°C.

ADVANTAGES

- Bioresorbable
- Biocompatible
- Implantable*
- Flexible
- Short degradation time

APPLICATIONS

- Suture thread
- Meshes

**The implantability of the filament depends on compliance with the regulatory process in force in the customer's country.*

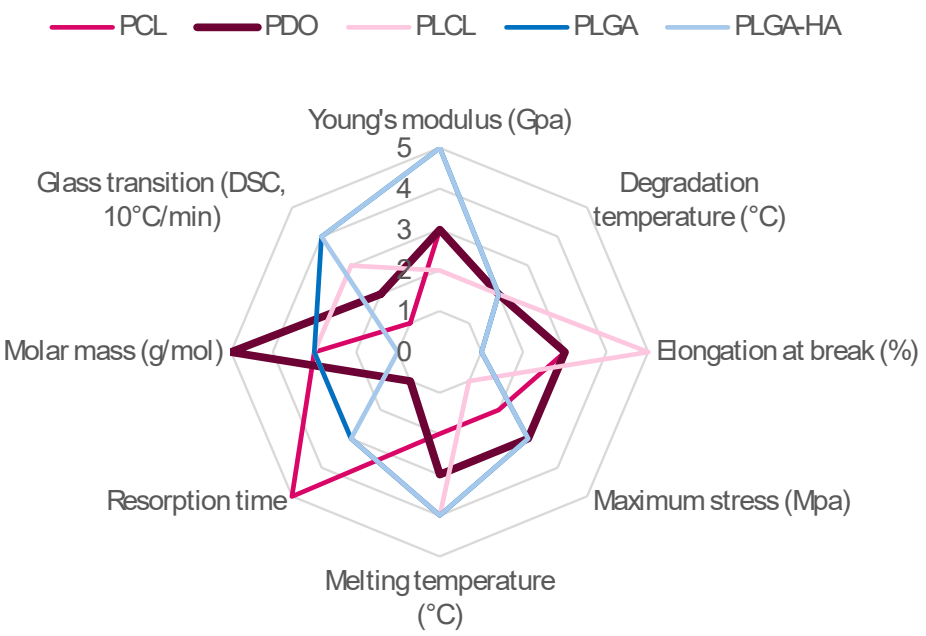
TECHNICAL PROPERTIES

Melting range *(DSC, 10°C/min)*	100 – 120°C
Glass transition	[-20 - -10°]C
Degradation temperature	>250°C
Maximum tensile stress	60 MPA
Elongation at break	30 %
Young's modulus	~ 0,6 GPA
Molar mass	140,000 - 180,000 g/mol

PRINTING PROPERTIES

Printing temperature	180-230°C
Build plate temperature	Ambient temperature
Print speed	20-60 mm/s
Cooling fan speed	60-100 %

PERFORMANCE PROFILE OF OUR FILAMENTS



USE INDEX

PDO is compatible with most 3D printers equipped with a hot plate, and can adhere to 2.85 mm or 1.75 mm filament.

Warning: As it stands, this product is not intended for human implantation. Any transformation, in particular 3D printing, leads to a break in traceability and invalidates the biocompatibility assessment carried out on the original material. It is the user's responsibility to demonstrate the absence of contamination and to carry out a full regulatory assessment of the biocompatibility of the final device. Lattice Services declines all responsibility in the event of use for medical or implant purposes.

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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