

ABS

TECHNICAL DATA SHEET

ABS is a medical-grade filament made from acrylonitrile butadiene styrene. This filament is made from granules complying with standard 10993-5. This amorphous thermoplastic can be used to make 3D parts such as surgical planning models or prototypes of skin-contact boxes and interfaces for patient monitoring.

PRODUCT IDENTIFICATION

| | |
|---------------|---------------------------------------|
| Product | ABS – Acrylonitrile Butadiene Styrene |
| Reference | PF-ABS |
| Technology | FDM - Filament deposition |
| Diameter | 1.75 mm - 2.85 mm |
| Color | Ivoiry |
| Rigidity | Rigid |
| Sterilization | Gamma ray / EtO |

ADVANTAGES

- High thermal resistance
- Low deformation
- Good mechanical strength
- Good impact resistance

APPLICATIONS

- Basic material for medical electronic devices
- Surgical planning template

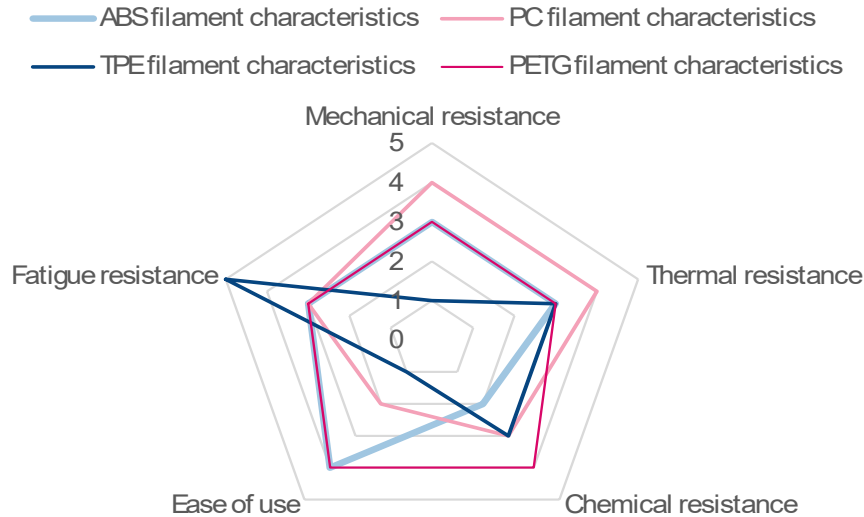
TECHNICAL PROPERTIES

| | |
|----------------------------------|-----------|
| Melting range (DSC, 10°C/min) | Amorphous |
| Glass transition | 95-115°C |
| Degradation temperature | >250°C |
| Maximum stress (tensile) | 41 MPA |
| Elongation at break | 36 % |
| Young's modulus | ~ 595 MPA |

PRINTING PROPERTIES

| | |
|-------------------------|------------|
| Printing temperature | 220-240°C |
| Build plate temperature | 100-115°C |
| Print speed | 20-50 mm/s |
| Cooling fan speed | 0-5 % |

PERFORMANCE PROFILE OF OUR FILAMENTS



USE INDEX

We recommend the use of enclosed 3D printers with a platen capable of heating to over 120°C, and able to accept 2.85mm or 1.75mm filament.

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.

Contact

Lattice Services
09 73 79 84 12
Contact@lattice-services.com
80 rue du Docteur Yersin, 59120, Loos, France