

# BLACK ABS

## TECHNICAL DATA SHEET

Black 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	Black
Rigidity	Rigid
Sterilization	Gamma ray / EtO

### ADVANTAGES

- High thermal resistance
- Low deformation
- Good mechanical strength

### APPLICATIONS

- Basic material for medical electronic devices
- Surgical planning template

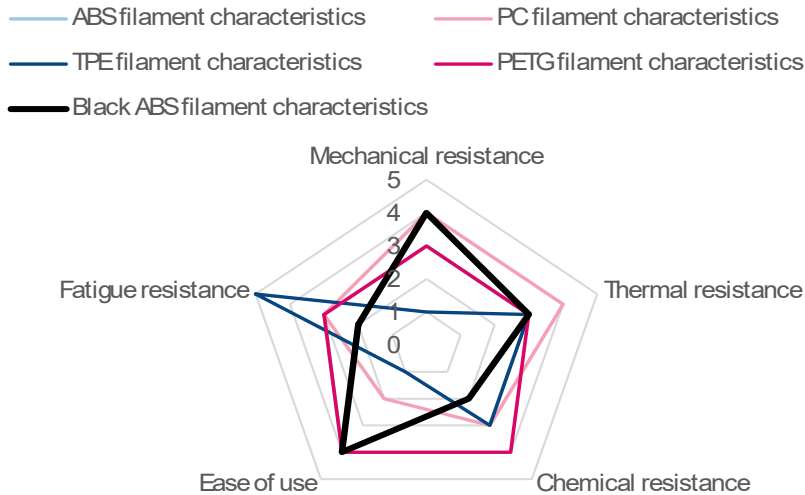
### TECHNICAL PROPERTIES

Melting range (DSC, 10°C/min)	Amorphous
Glass transition	95-115°C
Degradation temperature	>250°C
Maximum stress (tensile)	70 MPA
Elongation at break	13 %
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.

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