TECHNICAL DATA SHEET

FILAMENT 3D ABS Medical

Revision date: 27.11.2025

Date of issue: 8. 6. 2026

BASIC INFORMATION

PRODUCT NAME: FILAMENT 3D ABS Medical 1.75mm

PRODUCT DESCRIPTION: Filament ABS Medical is a styrene–acrylonitrile–butadiene copolymer in the form of a filament designed for 3D printing using the FFF/FDM method. The supplied filament is wound on a spool, vacuum-sealed in a PA/PE bag with a desiccant, and packed in a cardboard box. The product is intended for use with 3D printers operating in FDM technology. It should be used in a well-ventilated area to avoid exposure to fumes emitted during printing. It is important to avoid direct contact with the printer's heated components, as this may cause burns. The filament should be stored in a dry place, in a closed container, and out of reach of children. It is recommended to use the filament within the suggested printing temperature range to achieve optimal results. Filament waste should be disposed of in accordance with local regulations. The product has been designed with safety in mind and meets all relevant standards for consumer use.

STORAGE: Store in dry area. Store in a closed container.

PRODUCT PARAMETERS

PARAMETER	VALUE
Filament diameter [mm]	1.75
Diameter tolerance [mm]	+/-0,05
Oval tolerance [mm]	+/-0,02

RECOMMENDED PRINTING PARAMETERS

PARAMETER	VALUE
3D printing temperature [C]	230-270
Heated bed [C]	80-110
Cooling fan [%]	0-50
Closed chamber	recommended
Closed chamber temperature [C]	50-80
Drying conditions [C/h]	80-90/3-4

ROSA PLAST Sp. z o.o
ul. Hipolitowska 102B, 05-074 Hipolitów, Poland
Tel.: +48 22 783 62 62
Email: 3d@rosaplast.pl | https://rosa3d.pl

TECHNICAL DATA SHEET

FILAMENT 3D ABS Medical

Revision date: 27.11.2025

Date of issue: 8. 6. 2026

PHYSICAL PARAMETERS OF THE MATERIAL

PARAMETER	VALUE	UNIT	TEST METHOD
Gęstość/Density	1,05	g/cm3	ISO 1183
VICAT	100	°C	ISO 306
HDT A	94	°C	ISO 75-1/-2
HDT B	98	°C	ISO 75-1/-2
Współczynnik liniowej rozszerzalności cieplnej/Coefficient of linear thermal expansion	90	E-6/K	ISO 11359-1/-2
CTI	600	-	IEC 60112
Wytrzymałość elektryczna/Electric strength	37	kV/mm	IEC 60243-1
Moduł sprężystości/Tensile modulus	2280	MPa	ISO 527
Wytrzymałość na rozciąganie przy granicy plastyczności/Tensile strength at yield	48	MPa	ISO 527
Wytrzymałość na rozciąganie przy granicy plastyczności/Tensile strength at yield	2.5	%	ISO 527
Wydłużenie przy zerwaniu/Elongation at break	10	%	ISO 527
Udarność metodą Charpy'ego (+23°C)/Charpy impact strength (+23°C)	170	kJ/m2	ISO 179/1eU
Udarność metodą Charpy'ego (-30°C)/Charpy impact strength (-30°C)	90	kJ/m2	ISO 179/1eU
Udarność metodą Charpy'ego (z karbem, +23°C)/Charpy impact strength (notched, +23°C)	14	kJ/m2	ISO 179/1eU
Udarność metodą Charpy'ego (z karbem, -30°C)/Charpy impact strength (notched, -30°C)	6	kJ/m2	ISO 179/1eU
Biological Reactivity Tests, USP Plastic Class VI	Granulat zgodne z wymaganiami/Pellet meets the requirements	-	US Pharmacopoeia
Biological Evaluation of Medical Devices Part 4: In vitro: Haemolysis	Granulat zgodne z wymaganiami/Pellet meets the requirements	-	ISO 10993-4

ROSA PLAST Sp. z o.o
ul. Hipolitowska 102B, 05-074 Hipolitów, Poland
Tel.: +48 22 783 62 62
Email: 3d@rosaplast.pl | https://rosa3d.pl

TECHNICAL DATA SHEET

FILAMENT 3D ABS Medical

Revision date: 27.11.2025

Date of issue: 8. 6. 2026

Biological Evaluation of Medical Devices Part 5: Test for Cytotoxicity	Granulat zgodne z wymaganiami /Pellet meets the requirements	-	ISO 10993-5
Dopuszczenie do kontaktu z żywnością /Food Contact Approval	TAK/YES	-	UE 10/2011; US FDA 21 CFR 181.32
Sterylizacja /Sterilization	Gamma radiation, E-beam, EtO, NO2	-	-

The values above have been measured using standard test specimens made of non-colored material at room temperature. The figures should be considered as indicative values only. Actual properties of ABS Medical parts can be affected by the printing parameters, design of the model, ambient conditions, application of the printout etc. It is essential that users test our products to determine whether they are suitable for their intended use. ROSA PLAST Sp. z o.o. accepts no liability for any health detriment or material losses or any other losses related to the use of the material. Additional documents, certificates and detailed technical information can be provided on special request.

ROSA PLAST Sp. z o.o
ul. Hipolitowska 102B, 05-074 Hipolitów, Poland
Tel.: +48 22 783 62 62
Email: 3d@rosaplast.pl | https://rosa3d.pl