

## BASIC INFORMATION

**PRODUCT NAME:** FILAMENT 3D ASA + 5Kevlar 1.75mm

ASA+5Kevlar filament is a copolymer of acrylonitrile, styrene and acrylates with a 5% addition of aramid fibres in the form of a filament, designed for FFF/FDM 3D printing. Filament wound on a spool, vacuum packed in a PET/PE bag with moisture absorber. Packed in a cardboard box. The product is designed for use with 3D printers using FDM technology. It should be used in a wellventilated room to avoid exposure to fume

**PRODUCT DESCRIPTION:** emissions during printing. It is important to avoid direct contact with hot printer components, which can lead to burns. Filament should be stored in a dry place, in a closed container and away from children. It is recommended to use the felt material within the recommended printing temperature range for optimum results. Dispose of waste filament 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]	250-280
Heated bed [C]	70-110
Cooling fan [%]	0-30
Closed chamber	recommended
Closed chamber temperature [C]	50-80
Recommended nozzle	steel
Drying conditions [C/h]	60-80/4-6

\* Recommended to pre-dry the filament before each print.

## PHYSICAL PARAMETERS OF THE MATERIAL

PARAMETER	VALUE	UNIT	TEST METHOD
<b>Gęstość/Density</b>	1,07	g/cm <sup>3</sup>	ISO 1183
<b>Udarność metodą Charpygo/Charpy impact strength</b>	24	kJ/m <sup>2</sup>	ISO 179-1eU
<b>Udarność metodą Charpygo (zkarbem)/Charpy impact strength (notched)</b>	7,3	kJ/m <sup>2</sup>	ISO 179-1eA
<b>Wydłużenie przy rozciąganiu przy granicy plastyczności/Tensile elongation at yield</b>	2,5	%	ISO 527-1
<b>Wydłużenie przy rozciąganiu do zerwania/Elongation at break</b>	6	%	ISO 527-1
<b>Wytrzymałość na rozciąganie przy granicy plastyczności/Tensile strength at yield</b>	40	MPa	ISO 527-1
<b>Wytrzymałość na rozciąganie do zerwania/Tensile strength at break</b>	33	MPa	ISO 527-1
<b>Moduł sprężystości//Tensile modulus</b>	2200	MPa	ISO 527-1
<b>VICAT</b>	93	stC	ISO 306
<b>HDT</b>	88	stC	ISO 75(0,45MN/m <sup>2</sup> )
<b>HDT</b>	78	stC	ISO 75(1,81MN/m <sup>2</sup> )

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 ASA + 5Kevlar 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.

