

**PRODUCT NAME:** 3D FILAMENT ROSA-Flex 96A 1,75mm

**PRODUCT DESCRIPTION:** ROSA-Flex 96A filament - a thermoplastic polyurethane in the form of a thread, designed for 3D printing using the FFF/FDM method. Filament coiled on spools, vacuum-packed with desiccant in a PET/PE bag, and then in a box.

**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
Net weight [g]	500
Weight with packaging [g]	900
Spool weight [g]	transparent spool: 245 wood spool: 190
Small spool dimensions [mm] ( $\phi$ / height / hole $\phi$ )	200/55/52
Box dimensions [mm]	218/209/62

## RECOMMENDED PRINTING PARAMETERS

Parameter	Value
Print temperature [°C]	220-250
Bed temperature [°C]	30-60
Print speed [mm/s]	15-50

We recommend that you dry the filament before printing at 65-70°C for at least 6-8h.

## PHYSICAL PARAMETERS OF THE MATERIAL

Parameter	Value	Unit	Test method
Density	1,22	g/cm <sup>3</sup>	ISO 1183
VICAT	126	°C	ISO 306 (1 Kg, 50°C/h)
Tensile strength	55	MPa	EN 12803
Tear strength	140	KN/m	ISO 34

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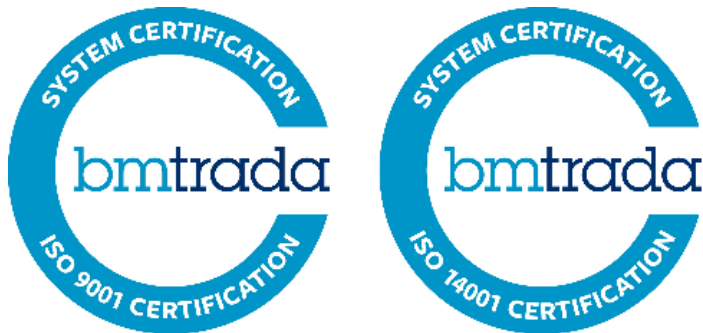
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Elongation at break	350	%	EN 12803
Abrasion resistance	35	mm <sup>3</sup>	EN 12770
Glass transition temperature (Tg) DSC	-25	°C	-
Glass transition temperature (Tg) DMA	-20 <sup>1</sup>	°C	-
Elastic modulus at 5% of elongation	7,0	MPa	EN 12803
Elastic modulus at 50% of elongation	12,9	MPa	EN 12803
Elastic modulus at 100% of elongation	15,5	MPa	EN 12803
Elastic modulus at 300% of elongation	44,5	MPa	EN 12803
Food Contact Approval	YES	-	-

<sup>1</sup> Maximum of Loss modulus curve in Dynamic Mechanical Analysis

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 ROSA-Flex 96A 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.



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