TECHNICAL DATA SHEET

3D FILAMENT ASA
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PRODUCT NAME: 3D FILAMENT ASA 1,75mm

PRODUCT DESCRIPTION: ASA filament is a acrylonitrile styrene acrylatein the form of a thread. Material is suitable for outdoor application with medium exposure to UV light. Material is resistant for water exposure, including immersion.
Filament is 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]	**700**	**2500**
Weight with packaging [g]	1100	3500
Spool weight [g]	ECO PP wood: 190	710
	Transparent PC: 245	
Spool dimensions [mm] (ø / height / hole ø)	ECO PP wood: 200/57/52	300/100/52
	Transp. PC: 200/55/52	
Box dimensions [mm]	220/210/65	325/310/110

RECOMMENDED PRINTING PARAMETERS

Parameter	Value
Print temperature [°C]	230-260
Bed temperature [°C]	70-110
Cooling [%]	0-50
Closed chamber	Recommended
Chamber temperature [°C]	50-80
We recommend drying the filament before printing for 3-4 hours at 80-90°C	

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PHYSICAL PARAMETERS OF THE MATERIAL

Parameter	Value	Unit	Test method
Density	1,07	g/cm^3	-
VICAT	94	°C	ASTM D1525
Tensile modulus	1725	MPa	ASTM D638 (1 mm/min)
Tensile strength to break	40	MPa	ASTM D638 (50 mm/min)
Elongation at break	35	%	ASTM D638 (50 mm/min)
Izod impact strength (notched)	40	kg*cm/cm	ASTM 256
Hardness	91	R-scale	ASTM D785
HDT	85	°C	ASTM D648 (6,4mm; 18,6kg)
HDT	94	°C	ASTM D648 (6,4mm; 4,6kg)
Flame rating	HB	-	UL94 (1,6mm; 3,2mm)
Dielectric strength	28	kV/mm	ASTM D149
Comparative Tracking Index CTI	PLC 0	-	UL 746
Volume resistivity	$1*10^{15}$	Ω*cm	ASTM D257

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 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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