

PRODUCT NAME: 3D FILAMENT PVA 1,75mm

PRODUCT DESCRIPTION: PVA filament is a poly(vinyl alcohol) 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]	245
Small spool dimensions [mm] (ϕ / height / hole ϕ)	200/55/52
Box dimensions [mm]	218/209/62

RECOMMENDED PRINTING PARAMETERS

Parameter	Value
Print temperature [°C]	190 - 215
Bed temperature [°C]	50 - 70
Print speed [mm/s]	20 - 50

PHYSICAL PARAMETERS OF THE MATERIAL

Parameter	Value	Unit	Test method
Density	1,25	g/cm ³	ISO 1183
VICAT	60.2	°C	ISO 306 (A/120 K/h)
Tensile modulus	3860	MPa	ISO 527 (1 mm/min)
Tensile strength	78	MPa	ISO 527 (50 mm/min)

Elongation at break	9,9	%	ISO 527 (50 mm/min)
Charpy impact strength	69,8	kJ/m ²	ISO 179/1 eU (23°C)
Charpy impact strength	52	kJ/m ²	ISO 179/1 eU (-30°C)
Charpy impact strength (notched)	1,6	kJ/m ²	ISO 179/1 eU (23°C)
Charpy impact strength (notched)	1,4	kJ/m ²	ISO 179/1 eU (-30°C)
HDT A	41,5	°C	ISO 75 (A/1,80 MPa/120 K/h)
HDT B	51,5	°C	ISO 75 (B/0,45 MPa/120 K/h)
Max. moisture absorption from air at 23°C and 50% relative humidity	~4	%	-
Melting point	170	°C	-
Glass transition temperature	60	°C	-
Water solubility	YES	-	-
Biodegradability	YES	-	ISO 14851
Toxicity	NO	-	-

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 PVA 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.

