

## PVA @df

PVA @df filament is quickly soluble in water, bonds well to plastics and prints easy. Therefore it is an excellent supporting material for dual extruder 3D printing. This polyvinyl alcohol-based filament is non toxic and biodegradable once dissolved in water. For applications other then supporting material PVA @df is also available in colours and has a high tensile strength.

### Features:

- Excellent water solubility
- Easy to print at low temperature
- Good bonding to various plastics such as PLA and ABS
- Biodegradable when dissolved in water
- Limited smell



### Colours:

PVA @df is available in its natural colour. For specific applications PVA @df is available in colours on request.

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### Packaging:

PVA @df is available in nearly any type of packaging and labelling, but will be supplied always in a vacuum bag, due to the moisture sensitivity of PVA. Ask our team to help you customizing your product.

### Additional info:

Recommended temperature for heated bed is  $\pm 35-60^{\circ}\text{C}$ . Do not exceed a printing temperature of  $225^{\circ}\text{C}$ , because then PVA crystallizes quickly and it will no longer flow and/or dissolve in water. .

The speed at which the product dissolves in water is dependent on the volume of the printed object and the temperature of the water. PVA @df dissolves in cold water. Higher water temperature (up to  $70^{\circ}\text{C}$  is no problem) will accelerate the dissolution.

PVA @df can be used on all common desktop FDM or FFF technology 3D printers.

Storage: Cool and dry ( $15-25^{\circ}\text{C}$ ) and away from UV light. This enhances the shelf life significantly .

### Dimensions

Size	Ø tolerance	Roundness
1,75mm	$\pm 0,05\text{mm}$	$\geq 95\%$
2,85mm	$\pm 0,10\text{mm}$	$\geq 95\%$

### Physical properties

Description	Testmethod	Typical value
Specific gravity	ASTM D1505	1,23 g/cc
MFR $190^{\circ}\text{C}/21,6\text{kg}$	-	14-20 g/10 min
Tensile strength	ISO 527	78 Mpa
Strain at break	ISO 527	9,90%
Tensile modulus (1mm/min)	ISO 527	3860 Mpa
Impact strength Charpy method $23^{\circ}\text{C}$	ISO 179	Notched 1,6 KJ/m $\square$

### Thermal properties

Description	Testmethod	Typical value
printing temp.	-	$180-205^{\circ}\text{C}$
melting temp.	-	$163^{\circ}\text{C}$
vicat softening temp.	ISO 306	$60,2^{\circ}\text{C}$