PVA

PVA 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 nontoxic, and biodegradable once dissolved in water. For applications other then supporting material PVA is also available in colours and has a high tensile strength.

Material features:

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

Colours:

PVA is available in its natural colour.

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Packaging:

PVA will always be supplied in a vacuum bag, due to the moisture sensitivity of PVA.

Filament specs.		
Size	**Ø tolerance**	**Roundness**
1,75mm	± 0,05mm	≥ 95%
2,85mm	± 0,10mm	≥ 95%

Material properties		
Description	**Testmethod**	**Typical value**
Specific gravity	ISO 1183	1,24 g/cc
MFI 190°C/21,6kg	ISO 1133	14-20 g/10 min
Tensile strength at yield	ISO 527	78 MPa
Elongation strain at break	ISO 527	9,9%
Tensile (E) modulus	ISO 527	3860 MPa
Impact strength - Charpy method 23˚C Notched	ISO 179	1,6 kJ/m2
Printing temp.	Internal method	210±10°C
Melting temp.	-	163°C
Vicat softening temp.	ISO 306 A10	60,2°C

Additional info:

Recommended temperature for heated bed is ≥60°C. Do not exceed a printing temperature of 225˚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 dissolves in cold water. Higher water temperature (up to 70˚C is no problem) will accelerate the dissolution. PVA can be used on all common desktop FDM or FFF technology 3D printers.

Storage: Cool and dry (15-25˚C) and away from UV light. This enhances the shelf life significantly