



PVA-M

PVA-M filament is our preferred, cold water soluble, supporting material for dual extruder 3D printing. The modification on the raw material results in a filament that is much more thermally stable than a regular PVA. It also bonds well to PLA and PET-G, which enlarges the application field significantly. This polyvinyl alcohol-based filament is nontoxic, and biodegradable once dissolved in water. Easy printing, much less failures and easy removability makes this the supporting material you should try.

Material features:

- Improved formula with enhanced stability in printing
- Excellent water solubility
- Thermally much more stable than a regular PVA
- Good bonding to PLA and PET-G
- Dissolved in water
- Waste can be disposed with household effluent (*)



Colours:

PVA-M is available in its natural colour. For specific applications PVA-M is available in colours on request

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Packaging:

PVA-M is available in 500g

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	1,19 g/cc
MFI 220°C	-	2,3 g/10 min
Tensile (E) modulus	ISO 527	3500 MPa
Impact strength - Charpy method 23°C	ISO 179 1eA	1,7 kJ/m2
Printing temp.	Internal method	220±10°C
Melting temp.	-	163°C
Vicat softening temp.	ISO 306 B50	60,2°C

Additional info:

Recommended temperature for heated bed is $\geq 60^{\circ}\text{C}$. Do not exceed a printing temperature of 225°C for a prolonged period. PVA-M works with most of the common adhesives. The speed at which the product dissolves in water is dependent on the volume of the printed object, the amount and the temperature of the water. Higher water temperature (up to 70°C is no problem) will accelerate the dissolution. Keep in account that the temperature of the water is based on the properties of the material that you are printing with PVA-M to avoid warping issues. (example, if you print PLA with PVA-M, keep the water around 40°C). PVA-M can be used on most Dual printing desktop FDM or FFF technology 3D printers.

Storage: Cool and dry ($15\text{-}25^{\circ}\text{C}$) and away from UV light. This enhances the shelf life significantly. If you remove the spool out of the vacuum bag packaging and you do not store it in a room with low moisture content, we advise you to properly dry the material before printing to avoid any quality issue.

(*)This material is not fully biodegradable but can be disposed of through the household drain with an excess of water.