3DITALY

PROFESSIONAL
MATERIAL

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

Dimensions

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

Thermal properties

Description	Testmethod	Typical value
Printing temp.	-	205±10°C
Melting temp.	-	163°C
Vicat softening temp	ISO 306	60,2°C

Physical properties

Description	Testmethod	Typical value
Specific gravity	ASTM D1505	1,23 g/cc
MFI 190°C/21,6kg	ISO 1133	14-20 gr/10 min
Tensile strenght	ISO 527	78 Mpa
Elongation at break	ISO 527	9,9%
Tensile modulus	ISO 527	3860 Mpa
Impact Strength Izod Notched 23˚C	ISO 179	35 kJ/m2

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

Additional info:

Recommended temperature for heated bed is ± 35-60˚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