Technical data sheet PVA

Description

PVA (Polyvinyl alcohol) is a water soluble polymer, ideal to to work as support material for multi-material 3D Printing.

Optimized for the FFF manufacturing process, our PVA works seamlessly with PLA, TPU, PET-G and Nylon, becoming a reliable universal support material to print complex geometries, large overhangs or intricate cavities.

Properties

- Improved thermal stability to avoid jamming and degradation issues
- Less sensitive to ambient moisture, increasing durability
- As easy to dissolve as immersing it into tap water
- Biodegradable

Recomendations

Make sure PVA is dry before printing. Place it in an oven or in an dehydrator at 70°C for 6 to 8 hours. After drying, store it in an airtight container with desiccant.

PVA emits low levels of gasses and particles when printed. We recommend printing it in a well-ventilated area.

Use an ultrasonic cleaner for a faster support dissolution.

Filament specifications	
Diameter	⌀ 2.85 mm
Max roundness deviation	≥ 95%
Net filament weight	500 g
Specific gravity (ASTM D1505)	1.22 g/cc

Mechanical properties		
	Typical value	Test method
MFR 220˚C	2.3 gr/10 min	-
E-Modulus	3500 Mpa	ISO 527
Impact strength-Charpy method 23˚C	1.7 kJ/m²	ISO 179

Thermal properties		
	Typical value	Test method
Melting temp.	163 ˚C	-
Vicat softening temp.	60.2 ˚C	ISO 306

Printing settings	
Extruder temperature	210 ˚C - 230 ˚C
Bed temperature	65 ˚C
Speed	20-30 mm/s
Retraction speed	40 mm/s
Retraction distance	4 mm
Cooling fan	Yes
Minimum layer height	0.05 mm

More information about PVA: https://www.bcn3dtechnologies.com/en/3d-printer/filaments/#pva