

Technical data sheet PVA



Description

PVA (Polyvinyl alcohol) is a water soluble polymer, ideal 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

Recommendations

Make sure PVA is dry before printing. Place it in an oven or in a 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	Ø 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/m ²	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>

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