

Technical data sheet

PVA

Ultimaker

Chemical composition

See PVA safety data sheet, section 3

Description

PVA (polyvinyl alcohol) is a water soluble support material for multi-extrusion 3D printing. With a good thermal stability, Ultimaker PVA is ideal for printing complex models that require supports for large overhangs, deep internal cavities, and intricate geometries. Designed for a seamless 3D printing experience, our PVA provides good adhesion to both PLA and Nylon

Key features

Good thermal stability resulting in better degradation resistance compared to other PVA filaments; less moisture sensitive than other PVA filaments; great adhesion to both PLA and Nylon; safe dissolution in tap water (no harmful chemicals required); biodegradable with no hazardous by-products

Applications

Reliable 3D printing of water soluble support structures for PLA and Nylon build materials. PVA molds

Non-suitable for

Reliable 3D printing of water soluble support structures for ABS or CPE build materials

Filament specifications

	Value	Method
Diameter	2.85 ± 0.10 mm	-
Max roundness deviation	0.10 mm	-
Net filament weight	350 g / 750 g	-
Filament length	~ 45 m / ~ 96 m	-

Color information

Color	Color code
PVA Natural	N/A

Thermal properties

	Typical value	Test method
Melt mass-flow rate (MFR)	17 - 21 g/10 min	(190 °C, 2.16 kg)
Heat detection (at 0.455 MPa)	-	-
Heat deflection (at 1.82 MPa)	-	-
Vicat softening temperature	60.2 °C	ISO 306
Glass transition	-	-
Coefficient of thermal expansion	-	-
Melting temperature	163 °C	ISO 11357
Thermal shrinkage	-	-

Other properties

	Value	Test method
Specific gravity	1.23	ASTM D1505
Flame classification	-	-

Notes

Properties reported here are average of a typical batch. Ultimaker is constantly working on extending the TDS data.

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