Ultimaker

Ultimaker PVA
Technical data sheet

General overview

Chemical composition	Polyvinyl alcohol - see Ultimaker PVA safety data sheet
Description	PVA (polyvinyl alcohol) is a water soluble support material for dual 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, Ultimaker PVA provides good adhesion to a variety of materials - check our support website for the latest compatibility overview.
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 PLA, PETG and Nylon-based filaments; biodegradable in natural fresh water (no harmful chemicals required); biodegradable with no hazardous by-products
Applications	Reliable 3D printing of water soluble support structures for PLA, PETG and Nylon build materials. PVA molds
Non-suitable for	Reliable 3D printing of water soluble support structures for Ultimaker ABS, CPE+, PC, and PP.

Filament specifications

	Method (standard)	Value
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

	Test Method	Typical value
Melt mass-flow rate (MFR)	ISO 1133 (190 °C, 2.16 kg)	17-21 g / 10 min
Heat deflection (HDT) at 0.455 MPa*	ISO 75-2 / B	-
Vicat softening temperature*	ISO 306 / A120	-
Glass transition	ISO 11357 (DSC, 10 °C / min)	58.4 °C
Melting temperature	ISO 11357 (DSC, 10 °C / min)	175.4 °C

Other properties

Specific gravity	ASTM D1505	1.23 g / cm^3

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Version	v5.00
Date	April 29, 2022