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 Ultimaker PLA, Tough PLA, Nylon, and CPE
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 Ultimaker ABS, CPE+, PC, and PP. This support will adhere to Ultimaker TPU 95A, however the resulting surface quality is suboptimal

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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