Ultimaker

# Ultimaker PVA
Technical data sheet

## General overview

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|---|---|
| **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

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|---|---|---|
| **Specific gravity** | ASTM D1505 | 1.23 g / $cm^3$ |

# Disclaimer

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