



BILBYCNC PVA FILAMENT FACT SHEET

Version 1.2

ABOUT OUR PVA FILAMENT

This Poly Vinyl Alcohol (PVA) plastic is for 1.75mm extrusion and has been tested on Makerbot 3D printers. It has been designed to be water soluble. You can just swap the filament from your extruder, and load in the PVA filament as normal, then build objects just like you would with ABS or PLA. The prints come out a matte white color and smell a bit like white craft glue. **IMPORTANT!** Please note that extrusion temperatures are different to ABS or PLA and storage requirements are higher. NEVER leave PVA on your machine when not using it. Also remember to run load long enough to flush out the previous filament or the first layers may not dissolve.

Please read the below instructions and adjust your machine prior to use.

HOW TO USE IT

PVA has a low melt point, and will flow (become liquid) at only 185-190°C. We have had this material manufactured so that it extrudes at 185-195°C. We have tested it on a **Makerbot Replicator** printing with our **upgraded filament feeder** onto a **Blue Tape** covered bed. It printed first time, every time.

Important: PVA is also sensitive to higher temperatures, and begins to undergo pyrolysis at higher than 200°C, which may block your nozzle.

If PVA is left to sit at temperatures higher than 200°C for extended periods of time, it will form tar jams that are extremely difficult to remove. Unlike PLA and ABS, you cannot remove a PVA jam by increasing temperature or drive force.

A jammed nozzle will often need to be re-drilled or replaced!

So please make sure when rendering your file for printing make sure you adjust the extrusion temperature. We printed at 190°C

STORAGE : LIGHT AND WATER SENSITIVITY

DO NOT LEAVE IT ON YOUR MACHINE WHEN YOU ARE NOT PRINTING!

This material absorbs moisture once the packaging is opened! We have double bagged the product so that you can use the silver zip bag to store it in after you open it.

Damp material may be dried out at 60–80°C for 6–8 hrs in a circulated air dryer. Moist material may bubble when printing, or even fail to extrude.

BilbyCNC PVA should remain stable for 6-12 months in an air tight, light tight container in dry conditions

DISSOLVING PVA

PVA dissolves rapidly with simple submersion in water. Fine parts will begin to dissolve immediately!

To speed up dissolving, gentle stirring can be applied. Warm water also speeds up the process.

BYE BYE OCTOPUS

We printed our octopus with 2 shells, 10% Fill and at a 0.2 layer height. He was 4.5 cm wide and his legs were 0.4mm tall/thick, while his body was 3cm tall.

As you can see in seconds the wispy strings between the legs dissolved. By 30 minutes he almost had no legs. By 2hrs he was gone. We started with water at 34°C, which had dropped to 24°C within 1 hour.

*BilbyCNC hopes you found this helpful.
If you need more help please visit
support.bilbycnc.com.au or
call 1800 245 297 (Australian Ph No)*

