



# 3.0mm PVA PVA Water-Soluble Filament (0.5kg)

SKU: FIT0359 Brand: DFRobot



## INTRODUCTION

Polyvinyl alcohol (PVOH, PVA, or PVAL) is a water-soluble synthetic polymer. It has the idealized formula  $[\text{CH}_2\text{CH}(\text{OH})]_n$ . It is widely used in papermaking, textiles, and a variety of coatings. Colourless and odorless, PVA is sometimes supplied as beads or as solutions in water.

In 3D Printing, PVA is a wonderful support material since it is water soluble. It will dissolve faster in a heated agitated bath, and it's ideally biodegradable!

### How To Use

This material absorbs moisture once the packaging is opened and should therefore be processed only from the unopened original bag. Otherwise bubbles may occur in the molding. Damp material can be dried at 60 – 80C for 6–8 hours in a circulated air dryer. Suitable processing temperature should not exceed 160-175C because at higher temperatures the material suffers thermal damage. Residence time should be as short as possible, 5–10 minutes at most.

### Dissolving PVA

PVA dissolves rapidly with simple submersion. A 10cm cube printed with no one surface at 20% infill and submerged in one cup of room-temperature water will begin to break apart within 20 minutes, and entirely within 24 hours. To speed up the dissolution,

gentle stirring can be applied. Warm water may also enhance the process. The water will quickly become an opaque white, and take on the appearance and consistency of wood glue.

## **SPECIFICATION**

- Color: pale yellow
- Spool Size: 170X170X55mm(6.7x6.7x2.2")
- Spool hub hole: 50mm(2")
- Diameters: 3.00mm±0.05 mm(0.12"±0.002")
- Net Weight: 0.5 kg (1.1 lbs )
- Melting temperature: 160°C
- Nozzle temperature: 210-215°C
- Density: 1.3g/cm<sup>3</sup> (21.5°C)

## **SHIPPING LIST**

- 3.0mm PVA (0.5kg) X1