



# Technical Document

## RS PRO - PVA+

Stock numbers:  
174-0081 / 174-0082

EN

PVA+ filament is our preferred, cold water soluble, supporting material for dual extruder 3D printing. The modification on the raw material results in a filament that is much more thermally stable than a regular PVA. It also bonds well to PLA, ABS and PET-G, which enlarges the application field significantly. This polyvinyl alcohol-based filament is non-toxic and biodegradable once dissolved in water. Easy printing, much less failures and easy removability makes this the supporting material you should try.

### Material features:

- Improved formula with enhanced stability in printing
- Excellent water solubility
- Thermally much more stable than a regular PVA
- Good bonding to PLA, PET-G and ABS
- Biodegradable when dissolved in water

### Colours:

RS PRO - PVA+ is available in its natural colour.

### Packaging:

RS PRO - PVA+ is available in 500 grams packaging and will be supplied in a vacuum bag, due to the moisture sensitivity of PVA+

### Filament specs.

Size	Ø tolerance	Roundness
1,75mm	± 0,05mm	≥ 95%
2,85mm	± 0,10mm	≥ 95%

### Material properties

Description	Testmethod	Typical value
Specific gravity	ASTM D1505	1,22 g/cc
MFR 220 °C	-	2,3 gr/10 min
Tensile (E) modulus	ISO 527	3500 Mpa
Impact Strength Charpy method 23 °C	ISO 179	1,7 kJ/m2
Printing temp.	Print Lab	215±10 °C
Melting temp.	-	163 °C
Vicat softening temp.	ISO 306	60,2 °C

### Additional information:

Recommended temperature for heated bed is ± 35-60 °C. Do not exceed a printing temperature of 225 °C, because then PVA+ crystallizes quickly and it will no longer flow and/or dissolve in water.

The speed at which the product dissolves in water is dependent on the volume of the printed object and the temperature of the water. PVA+ dissolves in cold water. Higher water temperature (up to 70 °C is no problem) will accelerate the dissolution.

PVA+ can be used on all common desktop FDM or FFF technology 3D printers.

Storage: Cool and dry (15-25 °C) and away from UV light. This enhances the shelf life significantly.

[rspro.com](http://rspro.com)