

## Raise3D Premium PVA+ Spécifications technique

Le Raise3D Premium PVA+ (alcool polyvinylique) est un filament de support soluble dans l'eau froide pour l'impression 3D FDM double extrusion. Ce matériau présente une stabilité thermique accrue et est compatible avec les matériaux génériques tels que le PLA, le PETG, le PA (Nylon), etc. Ce filament est non toxique et biodégradable une fois dissous dans l'eau.

### Material features:

- Formulation optimisée avec une imprimabilité et une stabilité thermique améliorées
- Excellente solubilité dans l'eau froide
- Bonne adhésion avec le PLA, PETG et le Nylon
- Facilité de retrait avec une interface de support lisse
- Les déchets peuvent être éliminés par les effluents domestiques (\*)

(\*) Ce matériau n'est pas biodégradable à 100% mais peut être éliminé par les égouts domestiques avec un excès d'eau.

### Spécification du filament

t	Ø tolerance	Roundness
1.75mm	±0.05mm	≥ 95%

Material	Compatibility
PLA	++
PETG	++
ABS, ASA	+
PC	-
PP	--
TPU	+
PA & PA CF	++

++ Excellent compatibility as support material for all geometries

+ Good compatibility as support material for most geometries

- Poor support for most geometries

-- Poor support for all geometries



## Material properties

Specification	Testing method	Typical value
Specific gravity	ISO 1183	1.22 g/cm <sup>3</sup>
MFR	ISO 1133 (220°C, 2.16 kg)	2.3 g/10 min
Young's modulus	ISO 527	3500 MPa
Charpy Impact Strength 23°C	ISO 179	1.7 kJ/m <sup>2</sup>
Printing temp.	Raise3D specific	215±10 °C
Melting temp.	Raise3D specific	163 °C
Vicat softening temp.	ISO 306	60 °C

### Packaging & Storage:

Raise3D Premium PVA+ is delivered in sealed and vacuumed bag. The material should be stored in cool (15-25°C), dry environment, and avoid direct sunlight. Once unpacked, please ensure the material is properly dried before print, in order to avoid any printing issue.

### Recommended Operation Conditions

Recommended part bed temperature: >60°C. The printing temperature should not exceed 225°C for over 5 min. Raise3D Premium PVA+ works with most of the common part bed adhesives. The dissolution rate of Raise3D Premium PVA+ in water is dependent on the volume of the printed object, the amount and temperature of water. Using higher water temperature (up to 70°C) will accelerate the dissolution process. However, to prevent the part deformation during dissolution process, the water temperature should not exceed the softening temperature of main material used, especially for PLA (water temperature lower than 60 °C).

### Disclaimer

The typical values presented in this data sheet are intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values may vary significantly with printing conditions. End- use performance of printed parts depends not only on materials, but also on part design, environmental conditions, printing conditions, etc. Product specifications are subject to change without notice.

Each user is responsible for determining the safety, lawfulness, technical suitability, and disposal/recycling practices of Raise3D materials for the intended application. Raise3D makes no warranty of any kind, unless announced separately, to the fitness for any use or application. Raise3D shall not be made liable for any damage, injury or loss induced from the use of Raise3D materials in any application.

