



the new age
for plastics

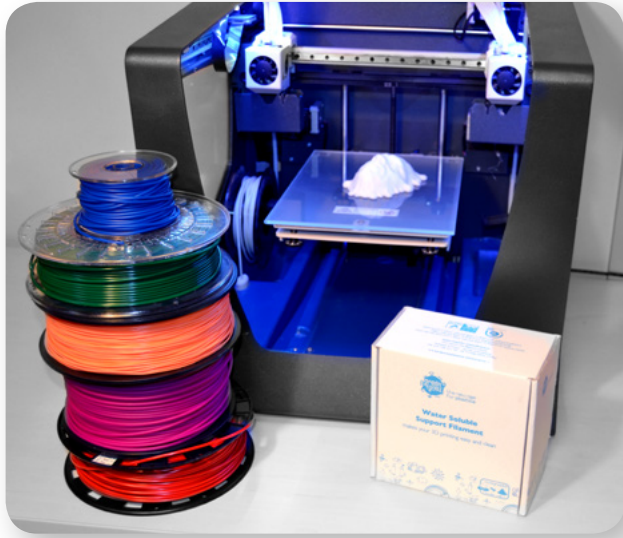
Water Soluble PVA Filament

Product Sheet

100% BIODEGRADABLE Y COMPOSTABLE

Familia Producto: AT, MT, BT

EP.I 1.06.02.1 October 2018



GreenCycles® PVA Filament is a water soluble and biodegradable material that, due to its versatile features and mechanical properties, can be used as support material for FDM 3D printing and also as model material for final parts.

This filament is made of Poly Vinyl Alcohol (PVA, PVOH), a biodegradable polymer with the peculiarity of being soluble in water, reaching its complete dissolution in between 5°C and 70°C. This special quality makes it a perfect material to print the base structure for complex figures, becoming easily removable with tap water once the final figure is finished.

Furthermore, GreenCycles® PVA Filament is completely biodegradable, non-toxic and harmless, and compostable (it becomes natural fertilizer in favourable environmental conditions), what makes it a perfect eco-friendly solution, either using it as support or as model filament for printing biodegradable figures.

RECOMMENDATIONS

The filament is manufactured with water-soluble material being sensitive to the ambient humidity so it is highly recommended to keep it in its original packaging until the time of use

CHARACTERISTICS

PVA (polyvinyl Alcohol) adheres well to other materials when used as support material, such as PLA, ABS and PET. Standard filament belongs to BT Family (soluble at low temperatures, between 5-10°C), and MT and AT filaments could be developed at request.

CERTIFICATES

Biodegradability according to UNE-EN-ISO 1485, ASTM D5509
Compostability according to UNE EN 13432, ASTM D6400
Non-toxicity according to UNE-EN-ISO 7346-1 and 6341, ASTM E1173

STANDARD DIMENSIONS

Available in spools. Standard sizes: 250g, 500g, 2 Kg, 5 kg and 10 kg.
Filament Diameters: 1,75 mm or 2,85 mm
Reel inner diameter: 50 mm
Color: Natural and blue
Other filament dimensions, diameters, colors, lengths, reels are deliverable for specific orders with minimum quantity

TECHNICAL DATA FILAMENT AVAILABLE

BT Product Family			
PROPERTIES	UNITS	STANDARD VALUES	NORM
Density	gr/cm3	1,23	UNE EN ISO 1183-1/2004
Dissolution temperature*	°C	5-10	PRO-PH10
Dissolution time	minutes	< 100	PRO-PH10
Softening time	minutes	< 15	PRO-PH10

TECHNICAL DATA ALTERNATIVE FAMILIES

AT Product Family			
PROPERTIES	UNITS	STANDARD VALUES	NORM
Density	gr/cm3	1,23	UNE EN ISO 1183-1/2013
Dissolution temperature*	°C	50-70	PRO-PH10
Dissolution time	minutes	< 60	PRO-PH10
Softening time	minutes	< 5	PRO-PH10

MT Product Family			
PROPERTIES	UNITS	STANDARD VALUES	NORM
Density	gr/cm3	1,23	UNE EN ISO 1183-1/2013
Dissolution temperature*	°C	20-30	PRO-PH10
Dissolution time	minutes	< 75	PRO-PH10
Softening time	minutes	< 10	PRO-PH10

*To note: Results obtained from 20x20x20 mm cube test (100% infill).

100% Recycled Paper, Blue Angel label
Ref 18178



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