

# Magigoo Pro 3D Printing Adhesive for Glass Filled Polypropylene

## Technical Data Sheet\*

Ver 1.0 November 2018



\*This document has been conscribed to the best of our knowledge. Verifications should be made to confirm details when necessary.

magigoo

magigoo.com

## **Description:**

MAGIGOO® - Glass filled Polypropylene (Magigoo-PPGF), is an all-in-one 3D printing adhesive that offers sure adhesion with easy release for Glass filled Polypropylene based filaments. Magigoo-PPGF, has been specifically formulated for Glass filled Polypropylene filaments to ensure that it provides an easy to use solution to reduce warping in FDM/FFF 3D printers. Warping, among other factors, is caused by the differential cool of a print during a 3D printing process. A heated bed could help reduce warping but for printing repeatability and reliability Magigoo\_PPGF is needed.

## **Technical specifications:**

- ▶ **Appearance:** clear-faint yellow liquid
- ▶ **Consistency:** low-med viscosity
- ▶ **Solvent:** water
- ▶ **Decomposition:** extended periods exceeding  $\geq 130$  °C

## **Intended use:**

To be used on FDM/FFF 3D printers with a heated bed on glass surfaces. Also works when applied on sheets e.g. Kapton, PEI and similar. To be used with Glass filled Polypropylene plastics.

## **Properties:**

Magigoo-PPGF acts as a thermally activated interfacial layer, allowing for better interactions, both at the micro and molecular level, between the printing bed and the printing materials. It is generally recommended to print according to the printing temperatures recommended by the filament supplier. The printing conditions vary between one printer and another.

To find the best temperature one could start from the lower end of the recommended settings and increase the bed temperature in 5 °C increments. This should be done with standardised calibration prints.

An additional benefit of Magigoo-PPGF, being thermally activated, is that it will release the print upon cooling. Again, different printers, print surfaces or filaments will have slightly different release conditions but as a general rule a reduction in temperature of 30-40 °C will be sufficient to remove your prints without any effort.

Cleaning and re-applying between prints is recommended especially on longer and/or more challenging prints.

### **Tips for challenging prints:**

- ➔ After first layer of adhesive dries, apply second layer.
- ➔ Add a wide brim (20mm with 2 layers recommended).
- ➔ Increase nozzle temperature for first layer (10 °C) then drop to the recommended temperature (filament manufacturer suggested).
- ➔ Increase bed temperature for first layer (5-10 °C) then drop to the recommended temperature (filament manufacturer suggested).
- ➔ Increase first layer width and reduce first layer height.
- ➔ Enclosed printer is recommended.

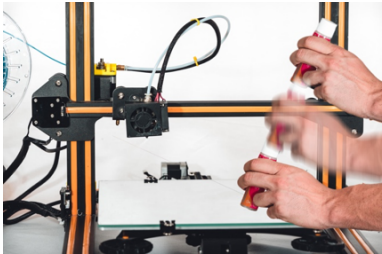

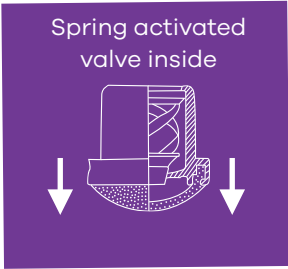

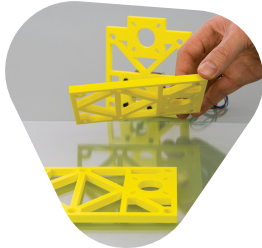

### **Storage and Handling:**

Magigoo-PPGF, should be stored in a cool dry place away from direct sunlight. After use Magigoo-PPGF should be stored in an upright position and with the cap on.

Excess Magigoo-PPGF on the nib can cause the applicator adhering to the cap. To prevent this, make sure no excess Magigoo-PPGF remains on the rim of the applicator after use.

If not capped the Magigoo-PPGF applicator will dry up. In such a case just rinse with water.

## Application Method:

<p><b>Step 1:</b> Shake the bottle vigorously.</p>	
<p><b>Step 2:</b> Press nib against the surface.</p> <p>NB! The Magigoo – PPGF container is spring activated. Pressing the bottle without pressing the nib against the bed may result in applicator popping off and product wastage.</p>	 
<p><b>Step 3:</b> Apply to Desired area</p>	
<p><b>Step 4:</b> Print</p> <p>NB! After print, wait until the build plate is cool to remove prints easily.</p>	
<p><b>Step 5:</b> Clean</p> <p>Just wipe off with a damp cloth. Yes, it's that easy</p>	

\* Images are illustrative. The prints and bottle in images are based on Magigoo original

## Package formats:

### **General Desktop Bottle**

50 mL – Foam head applicator with an HDPE actuator valve house in a HDPE system. Bottle is an HDPE/LDPE Blend allowing for the user to control the flow.

