Magigoo Pro 3D Printing Adhesive for Polypropylene

Technical Data Sheet*

Ver 1.5 February 2019

*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® - Polypropylene, is an all-in-one 3D printing, first layer adhesive that offers a strong adhesion platform for polypropylene based filaments. Magigoo is an easy to use 3D printing adhesive designed to reduce warping in FDM/FFF 3D printers. Warping, among other factors, is caused by the differential cooling of a print during a 3D printing process. For printing repeatability and reliability a sure adhesion method such as Magigoo - Polypropylene is needed.

Technical specifications:

- **Appearance:** milky white liquid
- **Consistency:** low-med viscosity
- **Solvent:** water

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 Polypropylene plastics.

Properties:

Magigoo – Polypropylene, 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.

Additionally Magigoo – Polypropylene, is temperature sensitive, in that it will reduce its adhesive properties upon cooling. Different printers, print surfaces or filaments will have slightly different release conditions.

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Part should become easier to remove after sufficient cooling (maximum half an hour after printing).

The best and most reliable performance is achieved when Magigoo Polypropylene is applied as a thin layer. This means that cleaning and re-applying between prints is recommended especially on longer prints or challenging prints.

Storage and Handling:

Magigoo – Polypropylene should be stored in a cool dry place away from direct sunlight. After use magigoo should be stored in an upright position and with **the cap on**.

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

Known Hazards:

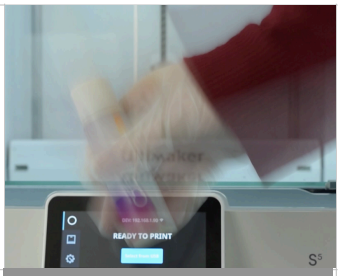
Causes serious eye damage Wash hands and exposed skin thoroughly after handling. Wear protective gloves.

Incompatible materials: Iron, Copper, Zinc.

Please refer to the SDS for full safety information.

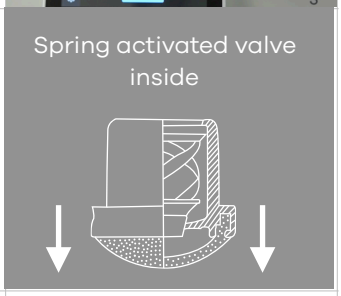
Application Method:

Step 1: Shake the bottle.



Step 2: Press nib against the surface.

NB! The Magigoo – Polypropylene container is spring activated. Pressing the bottle without pressing the nib against the bed may result in applicator popping off and product wastage.



Step 3: Apply to Desired area

Step 4: Print

NB! After print, wait until the build plate is cool to remove prints easily.

It is recommended to gently peel away the brim around the part and then attempting to remove the part by hand. If the part is hard to remove, a scraper should be used to assist part removal.

In cases of excess adhesion, it is recommended to wet print bed with a small amount of water slowly working it below the part. This should make part removal easier.

Step 5: Clean

NB! Use a wet sponge to remove all glue residue. Once the glue layer is wet it will form a white layer which can be easily scrubbed off with an abrasive sponge. Once the layer is completely loose from the glass it can be wiped away with a wet cloth and finally cleaned with a dry paper towel.

* Images are illustrative.

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Magigoo Pro 3D Printing Adhesive for Polyamide

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magigoo

magigoo.com

Description:

MAGIGOO® - PA (Polyamide/Nylon), is an all-in-one 3D printing adhesive that offers sure adhesion with easy removal for PA and fibre reinforced PA materials. MAGIGOO® - PA, has been specifically formulated for PA and fibre reinforced PA materials 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. MAGIGOO® - PA is purposely developed to reliably and repeatably minmise warping during FDM/FFF printing of PA materials.

Technical specifications:

- **Appearance:** clear-faint yellow liquid
- **Consistency:** low-med viscosity
- **Solvent:** water
- **Decomposition:** extended period exceeding >= 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 neat PA and fibre reinforced PA filaments.

Properties:

MAGIGOO® - PA, 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.

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An additional benefit of MAGIGOO® - PA, being thermally activated, is that it will enable the print to be easily removed upon cooling. Again, different printers, print surfaces or filaments will behave slightly different but as a general rule a reduction in temperature of around 40 °C will be sufficient to remove your prints without any effort.

Cleaning and re-applying between prints is recommended especially on longer prints or hard to print with materials.

Storage and Handling:

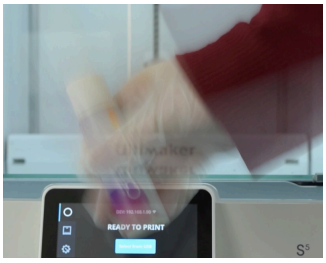
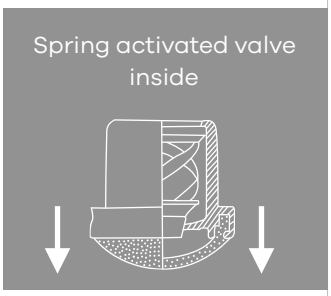
MAGIGOO® - PA, should be stored in a cool dry place away from direct sunlight. After use MAGIGOO® - Polyamide should be stored in an upright position and with the cap on.

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

If not capped the MAGIGOO® - PA applicator will dry up. In such a case just rinse with water.

Application Method:

* Images are illustrative.

Step 1: **Shake the bottle vigorously.** NB! Shaking too much might cause bubbling. This does not negatively affect adhesion but does not provide a mirror finish on the bottom of the print	
Step 2: **Press nib against the surface.** NB! The Magigoo – PA container is spring activated. Pressing the bottle without pressing the nib against the bed may result in applicator popping off and product wastage.	
Step 3: **Apply liberally to desired area** NB! For better adhesion of challenging prints, apply one layer first. Let it dry and apply another layer on top.	
Step 4: **Print** NB! After print, wait until the build plate is cool to remove prints easily.	
Step 5: **Clean** NB! Just wipe off with a damp cloth. Use just water.	

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Magigoo Pro 3D Printing Adhesive for Polycarbonate

Technical Data Sheet*

Ver 1.5 February 2019

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magigoo

magigoo.com

Description:

MAGIGOO® - Polycarbonate, is an all-in-one 3D printing adhesive that offers sure adhesion with easy release for polycarbonate based filaments. Magigoo Polycarbonate, has been specifically formulated for polycarbonate 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 cooling of a print during the 3D printing process, especially on higher temperature filaments such as polycarbonate. A heated bed could help reduce warping but for printing repeatability and reliability and sure adhesion, MAGIGOO® - Polycarbonate is needed.

Technical specifications:

- **Appearance:** clear-faint yellow liquid
- **Consistency:** low viscosity
- **Solvent:** water
- **Decomposition:** Extended periods exceeding >= 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 Polycarbonate plastics only.

Properties:

MAGIGOO® - Polycarbonate, 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.

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

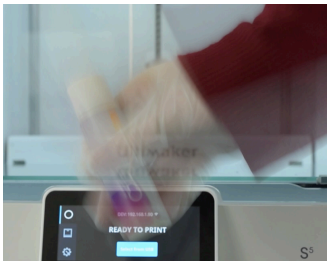
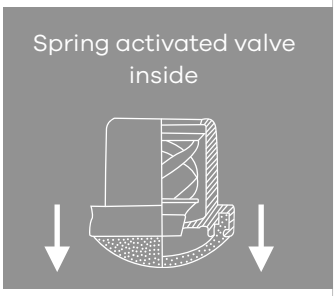
The best and most reliable performance is achieved when applied as a thin layer. This means that cleaning and re-applying between prints is recommended especially on longer prints or hard to print with materials.

Storage and Handling:

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

Excess MAGIGOO® - Polycarbonate on the nib can cause the applicator adhering to the cap. To prevent this, make sure no excess MAGIGOO® - Polycarbonate remains on the rim of the applicator after use. If not capped the MAGIGOO® - Polycarbonate applicator will dry up. In such a case just rinse with water.

Application Method:

Step 1: **Shake the bottle vigorously.**	 *
Step 2: **Press nib against the surface.** NB! The Magigoo – Polycarbonate container is spring activated. Pressing the bottle without pressing the nib against the bed may result in applicator popping off and product wastage.	
Step 3: **Apply to Desired area**	
Step 4: **Print** NB! Ensure proper bed calibration. Having nozzle too close to bed surface may cause excess adhesion damaging the bed. After printing, wait until the build plate is cool to remove prints easily.	
Step 5: **Clean** NB! Just wipe off with a damp (water) cloth.	

* Images are illustrative.

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Description:

MAGIGOO® is an all-in-one 3D printing adhesive that offers sure adhesion with easy release. Magigoo is an easy to use 3D printing adhesive designed 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 a sure adhesion method such as Magigoo is needed.

Technical specifications:

- **Appearance:** clear-faint yellow liquid
- **Odour:** faint odour
- **Consistency:** low-med viscosity
- **Solvent:** water
- **Decomposition:** extended periods exceeding 120 °C

Intended use:

To be used on FDM/FFF 3D printers with a heated bed on aluminium, glass surfaces. Also works when applied on sheets e.g. Kapton, PEI and similar. To be used with common plastics e.g. PLA, ABS, HIPS, PETG, TPU.

Properties:

Magigoo 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 recommended to print according to the printing temperatures recommended by the filament supplier. The printing conditions vary between one printer and another. If no recommendations are given by the filament supplier the following bed temperatures can be followed:

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Filament	Bed Temperature (°C)
ABS	90-110
PLA	40-70
PETG	80-100
HIPS	90-115
TPU	30-60

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.

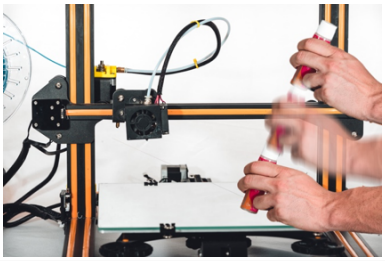
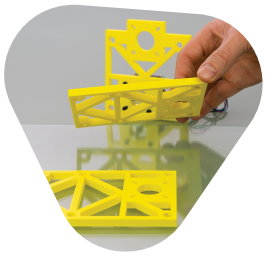
An additional benefit of Magigoo, being thermally activated, is that it will release the print upon cooling. Different printers, print surfaces or filaments will have slightly different released conditions but as a general rule a reduction in temperature by 30-40 °C will be sufficient to remove your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

If the material you are trying to print with is not specifically described in the table above it means we have either found that the results are not up to our standards or we have not conducted enough tests to assure its efficacy. There are other specialty Magigoo formulations for adhering engineering plastics such as Polycarbonate Polypropylene and Nylon should these materials be of interest.

Storage and Handling:

Magigoo should be stored in a cool dry place away from direct sunlight. After use Magigoo should be stored in an upright position and with the cap on. Excess Magigoo on the nib can cause the applicator adhering to the cap. To prevent this, make sure no excess Magigoo remains on the rim of the applicator after use. If not capped the Magigoo applicator will dry up. In such a case just rinse with water.

Application Method:

Step 1: **Shake it like you mean it.** NB! Shaking too much might cause bubbling. This does not negatively affect adhesion but will not provide a mirror finish on the bottom of the print.	
Step 2: **Press nib against the surface.** NB! The Magigoo container is spring activated. Pressing the bottle without pressing the nib against the bed may results in applicator popping off and product wastage.	
Step 3: **Apply to Desired area** NB! The best and most reliable performance is achieved when applied as a thin layer. This means that cleaning and re-applying between prints is recommended especially on longer prints or hard to print with materials.	
Step 4: **Print** NB! After print, wait until the build plate is cool to remove prints easily.	
Step 5: **Clean** NB! For cleaning - Just wipe off with a damp cloth. Yes, it's that easy.	

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