

## Premium ABS

It doesn't matter which desktop 3D printer you have, as 3D Printing will always go smoothly with Formfutura filament. Our Premium ABS filament prints perfectly with all common desktop 3D printers. Amongst others:

- RepRap (Mendel, Huxley, Prusa)
- Solidoodle
- MakerBot (Replicator, Replicator 2, Replicator 2X)
- Leapfrog
- UP! Plus, Up! Mini
- AND MANY MORE....!

ABS (Acrylonitrile Butadiene Styrene in full), is a thermoplastic which, as its name implies, is produced by the polymerization of acrylonitrile, butadiene, and styrene. ABS is produced from fossil fuels, meaning that it is not biodegradable and has a greater environmental impact than PLA for instance. Because of its toughness and strength ABS is a very popular and common used thermoplastic in industry.

Our Premium ABS 3D printer filament is wrapped on a reusable plastic spool. Our spool-wrapped Premium ABS filaments are packed in a silica sealed bag and come in a cardboard box.

### General Tips & Tricks for printing with ABS filaments

The printing temperature guideline for printing with our Premium ABS filament is approximately 235°C to 256°C. As each desktop 3D printer has its own unique characteristics, you might need to tweak around with your temperature settings a bit to obtain the best results. To obtain optimal results for your prints you need to take into account variables like your 3D printer's nozzle diameter, your printing speed settings, and layer height.

It is recommended to use a heated print bed when printing ABS. ABS has a tendency to warp, which makes it a difficult material to print without a heated print bed. Ideally your print bed temperature should be set at approximately 80° to 110 ° C. Please note that ABS will bend under too much heat, so after the first few layers, it's best to turn down your print bed temperature a bit.

A good first layer adhesion is of the utmost importance in obtaining the best results for your prints. Firstly make sure that your print bed is accurately levelled. Next, there are several tricks to get the first layer of your ABS print to stick better to the print bed of your 3D printer.

- In order to obtain a good first layer adhesion it is recommended to prepare your print bed with an adhesive spray like Dimafix.
- Use polyimide tape (Kapton tape or PET tape). ABS prints usually stick better to polyimide tape than to the print bed. When preparing the print bed it is better to have small gaps between your strokes of tape, rather than having overlaps. Overlaps of smaller pieces of tape may cause difficulties later on during the print process.
- Coat your print bed with hairspray. ABS has a tendency to stick really well to extra strong hairsprays.
- Coat your print bed with ABS juice. Dissolve a little piece of ABS in 50ml of Acetone. The acetone should get slightly cloudy. To make the surface of your print bed more sticky, you can lightly coat your print bed with this cloudy ABS/Acetone mixture. Please make sure not to use too much ABS in your juice as it will make your prints stick too well and be extremely difficult to remove. PET tape and Kapton tape are unlikely to leave a residue on your print bed. Hairspray and ABS/Acetone juice coatings will leave a residue on your print bed.