

HD PLA Fiberlogy – annealing instruction

1. Print your project.
 - a. Recommended printing temperature: 200°C - 220°C
 - b. Recommended bed temperature: 50°C - 70°C (heating is not required when using adhesion promoters). When printing on a glass bed, the use of adhesion promoters is recommended.
2. Place the completed print, with its supports and the raft, on a flat surface which you will later put in the heating chamber or oven (a perforated plate made of a weak heat conductor, e.g. wood, which will allow the print to evenly absorb the heat, also from the bottom, would be ideal)
NOTE: Do not place the print directly on the metal grill from the oven. This may change the print's geometry. It is possible to place prints on plates which will keep them insulated from the grill. It is important that these are made from a weak heat conductor (e.g. wood, cardboard).
3. Place the print in a cold oven so that it is evenly spaced from the heaters. Turn on the heating and the air flow.
4. Heat the oven gradually up to 80°C.
5. Keep heating the print at 80°C for about 15 minutes.
NOTE: The temperature in the oven must be maintained precisely. Because typical thermostats in domestic ovens are not precise, we recommend measuring the temperature with an additional digital thermometer with a probe that can be placed inside the oven chamber. It is essential to keep an eye on the print and the temperature during the heating process. In case of massive prints, you can gradually increase the temperature up to 120°C or leave it for longer to allow enough time for the print to absorb the heat.
6. After finishing the heating, remove the print from the oven without touching it.
7. Let it cool down and then remove the supports and the raft. Enjoy the print which will show similar characteristics to ABS. After proper heat treatment, the print will remain thermally stable up to a temperature of 140°C and can be easily machined.

IMPORTANT!

1. We do not recommend annealing products with thin walls and wide-stretching geometry without using any supports.
2. Make sure that the oven temperature reading shows the real temperature.
3. Shrinkage during the annealing process will naturally occur. Unfortunately, this cannot be avoided because the internal structure of the material is altered in the process, much like in the case of steel during hardening. The degree of shrinkage is dependent on the infill used. The larger the infill the smaller should be the contraction. Feel free to experiment with scale so that after the annealing process you achieve the required dimensions.
4. Always run the process on a trial print before annealing the actual product.

If you have any doubts or questions, please don't hesitate to contact us

office@fiberlogy.com