Water marbling 3D prints

Layla Smid
September/October

Index:

Introduction

The post processing of prints is becoming more popular every day. Not only consumers but also businesses are exploring the possibilities on how to do this.

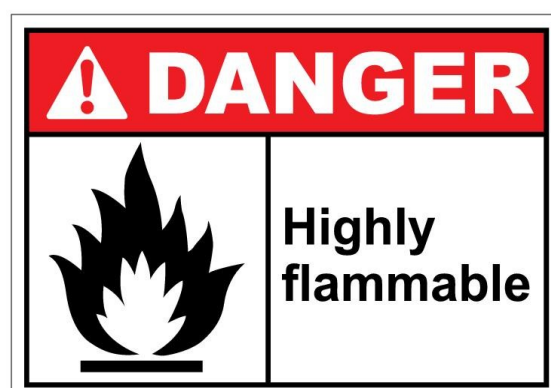In this document we are going to take an in depth look on post processing prints with water marbling.

What is water marbling?

Water marbling is applying a thin film of paint on your print to create a marble look. This technique requires some practice but you can let your imagination loose with different colors of paint. To give it a nice and glossy finish you can apply some layers of clear gloss paint or varnish.

Risk analysis

Before you start there are a couple things you have to keep in mind:
- Spray paint is highly flammable, besides that the vapors/mist that are released can cause some side effects.
- Keep away from fire!
- If your eyes come in contact with the mist this may cause some irritation.
- Spray in a well ventilated room or wear safety glasses.
- If the paint comes in contact with your skin repeatedly it may cause a dry or even cracked skin. You can wear latex gloves for protection and be sure to wash off any paint residue that is on your skin.
- Don't inhale any vapors. You can wear a safety mask and spray outdoors.
- The vapors may cause dizziness and sleepiness.

Necessities

What do you need to start water marbling?
- Prints you want to post process.
- A large bucket or box where you can put water in.
- Spray paint, choose any color you like.
- Latex gloves and safety mask.
- Pencil, skewer or other small object to marble the paint.
- A place to dry your prints
- Optional : clear varnish, primer and sanding paper.
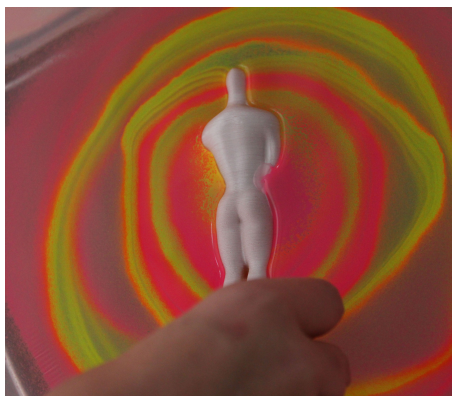
Step by step guide

Before starting you can prep your prints to ensure that the paints adheres better.
- Lightly sand down your print with sanding paper.
- Use a primer to make sure the paint adheres better.

Preferably go outdoors to water marble since the vapors can hold paint particles which you don't want indoors. Be sure that you are not in a draught.

Gather all your necessities and follow the steps below:
1. Fill your bucket with water, enough to fully submerge your print.
2. Shake your spray cans for at least 2 minutes.
3. Put on your gloves and spray your first color for 3 seconds in the water.
4. Now you can choose your next color and also spray this for 3 seconds.
5. You can keep adding colors until you are satisfied with what you got.
6. With a skewer or pencil you can marble the water if the paint has not yet created a hardened film on the water.
7. Take your print and gently push it through the layers of paint.
8. Keep underwater for at least 1 minute so it can start to harden in the water.
9. With your skewer or pencil clear away all the paint floating on the water.
10. Get your print out of the water and let it air dry for at least one minute before setting it to dry completely (2 hours.)

Tips:

Choose a bucket or box that can stay dirty after you have used it for your marbling. The paint does not come off easily

Be sure that your bucket with water is not somewhere draughty, this will cause the paint to set before you are able to marble it. You can still use the paint that you prepared for marbling but altering the paint with a skewer is no longer possible.
Do not use warm/hot water as this will harden out the paint too quickly.

I bought all my supplies at the Action, starting kit with 4 colors of paint costs approximately € 20.00.

The silver paint made a aluminum foil like texture on the water making it harder to process.

Conclusion

Water marbling is fun to do but certainly needs some practice. We were not able to marble the paint very well so the results were more in rings than marble-like.

Other than that we came across the issue that the paint as it dried came loose from the print. So our advice would be to lightly sand down the print and spray a primer on it for better paint adhesion. When the print has had its marble layer, spray it with a clear varnish for a glossy end result.