Basic Hydroprinting Guidelines

Required Products For This Guide

Link - Hydro Design Activator

Link - Hydrographics Film

Link - 3M Respirator

Link - Protective Suit

This document is intended to give a basic understanding of using our hydrographics films and Hydro Design activator. With this advice you should be well on your way to mastering each dip.

Step 1: Cut your film to the correct size for the part you are going to print. It is important to allow space on all sides of the part to maximise your working area. This can help to avoid any bubbles you may accidentally trap and also reduce stretching from the side. You may apply tape to 2 sides to make it easier to lay the film.

Step 2: Identify the sticky side of the film. This can be done by licking your thumb and forefinger tips and gently squeezing one edge of the film. Whichever finger the film stuck to, this is the side without ink and should be placed facing the water. So the sticky side always goes down!

Step 3: Lay your film on the water and allow the water to soak fully into the film. Some people try to stick to rigid timings such as 60 seconds. This is not a realistic method to use because all films can behave differently. Especially those printed on thicker PVA, which require much longer soak times. Having a higher or lower tank water temperature can also change the soak time so we recommend learning to read your film to know when it is fully hydrated. To do this simply observe your film on the water. What you are looking for is the moment when all the creases and wrinkles in the film have completely dropped out and the film is as flat as possible. Be sure to blow any bubbles to the side of the film as early as possible.

Step 4: Apply your activator. Whether this is aerosol or gun, it is important again to learn to read your film. Problems can arise very easily if you are not careful:

Too much activator can lead to the following:

- Print sliding off the part
- Paint reactions
- Marking in the ink such as small white worms or blotching
- Round holes appearing after printing.

Too little activator can lead to the following issues:

- Film appears 'crispy' or solid when dipping through
- Small holes with jagged edges
- Ink not adhering to the part
- Ink cracking or not stretching during the dip

To correctly apply activator, you should spray your first pass (either top to bottom or left to right with a slight overlap) and then take a look at the surface of the film. If it appears very grainy and dry, then more activator is required, so give it another pass and repeat the observation. If it looks very glassy then it is possible you have already applied too much activator but sometimes this is ok for certain heavier inked films. If this is the case then sometimes it is already too late. What you are looking for is just a very small amount of texture to the ink. You will learn to spot by eye when you have it spot on.

Step 5: Wait a short amount of time to allow the activator to penetrate the ink fully. This is especially important on thicker inked films such as our silver backed designs. 10 seconds is usually fine. This is one of those things that can vary per design but you will get to know roughly how long to 'dwell' for for certain types of film i.e. thin PVA thick ink, thin PVA thin ink etc.

Step 6: Rinse your part of all PVA and admire your good work!