

SUBLIMATION PRINTING

QUICK REFERENCE FOR SUBLIMATION PRINTING - TIPS AND INFORMATION

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OVER VIEW

All of us that are interested in sublimation printing, need to start somewhere. None of us have the knowledge in the beginning to know what it is, where to start.

None of us know what equipment is needed, safety steps needed to be taken or the how to's and why's of sublimation printing. This is a quick reference to help with remembering and to refer back to when a refresher is needed.

GETTING STARTED

To start out doing sublimation printing, the following items are needed, You should also have an understanding that in the beginning, you will have more failures than successes. Don't quit, just learn your equipment, learn the software and then you will have more successes.

1. A printer that you can do sublimation printing or be converted. See page 4.
2. Sublimation ink.
3. Sublimation paper.
4. Sublimation Blanks (Shirts, Mugs, tile, and other items that are designated for sublimation printing).
5. Computer/tablet.
6. Heat press.
7. Heat tape (with optional tape dispenser)
8. Non waxed butcher paper.
9. Heat resistant gloves.
10. Software to design.
11. A work area.

PRE PRESSING

Before pressing a sublimation print on any cloth, always use a lint roller on material, or there will be blotches on your design, where the lint was taking up surface space.

SAFETY TIP 1

Always wear heat resistant gloves when pulling items from the heat press. The heat press can give you 3rd degree burns and so can the items you are printing on.

POLYESTER

For printing on cloth, you should use 65% or higher of polyester materials. The higher the poly the more vivid the color will be.

SUBLIMATION INK

In order to do sublimation printing, you will need to have a printer that can use sublimation ink.

Some printers have conversion kits available to use Sublimation ink. Other printers, when new, you can just put the ink in and print.

You can not use regular ink to print sublimation projects. Sublimation Ink is a special ink that bonds to materials.

PRESS TIP 1

Practice on practice cloth to learn the best settings for using the heat press. You can press too hard and it will leave marks on the surface of your project.

Try testing on scrap material to learn the best pressure to put on different materials like the different types of material cloth, wood, tile, mouse pads and other project surfaces that you will be pressing on.

PRINTING TIP 1

Remember to set printer to mirror before sending to the printer if you did not set the printer to automatically mirror.

PRINTER MAINTENANCE 1

Setup a schedule to clean the printer head often, this will help with smudging, ink clogging up and causing other issues. You can use alcohol and a q-tip.

MOISTURE ISSUES

Moisture in cloth materials can affect the results of a sublimation print. It can make a print look faded. You can put the cloth on an ironing board for bigger items or pre-press the material 10 to 15 seconds to help get the moisture out of the cloth before trying to put it on the heat press.

PRINTING TIP 2

Remember to check that you have the correct paper size in the printer for your project, before sending to the printer.

CRICUT AND SILHOUETTE & OTHER CUTTERS

You can use a Cricut, Silhouette or other Cutters to cut out your images.

If you have one of these items that are the standard versions printing at 8.5"x11", you can press two printed pages on to a printing surface like a shirt, but you will need to line the images up to get the look you want to make it look like one image.

You can print the 8.5"x11" in landscape mode to cover more material for a shirt.

PRESS MAINTENANCE TIP 1

Schedule maintenance on your heat press to grease the pivot points of the press. The location that turns or is released to raise the heat press. Make sure to wipe away excess grease and clean the press bed and top, to make sure that it does not end up on your printing surface.

PRESS TIP 2

Have a thermometer gun and check the heat every press and pressure to make sure the press is getting to the desired temperature for the upcoming press, these are not accurate on shiny' surfaces like heat press platens.

SAFETY TIP 2

Accidents do happen, a burned finger here a cut there. One thing that needs to be in every shop is a first aid kit.



PRESS TIP 3

Protect the heat bed and top, try to avoid any gouges or indentions, accidents do happen, but be careful with your projects. A gouge or indention can take away from your heat press from having solid even surfaces, which will keep your projects from transferring evenly.

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SAFETY TIP 3

It is important to turn off the heat press if you are not going to be in the immediate area.

Like all equipment, a heat press can malfunction, which could cause a fire. It is best to always prepare for the worst, than the alternative.

Have a fire extinguisher in your work area just to be prepared in case there is a fire.

A pet could get burned or a fan could blow something flammable on to the surface. The unimaginable will happen.

IMAGES DPI

Images should be at least 300 DPI (Dots Per Inch) for sublimation printing. You can go higher, but some printers you will not notice the difference. A lower dpi will result in images not being high quality prints. The dots also help with the fine details of the image you are printing.

PRINTING TIP 3

Sublimation printing does not print the color white. With CMYK printing (which is what sublimation uses), there is no combination of base color inks that can produce the color white.

PRINTER MAINTENANCE 2

Test pages should be printed to make sure the printer ink is not clogged up, and to make sure the printer is printing correctly.

A Youtube video to show you how to setup an automatic print, to keep your printer running smoothly can be found by going to this Youtube link:

https://youtu.be/GhpCG_8GCHI

**THIS IS A FREE TIP SHEET
FEEL FREE TO SHARE IT**

PRESS TIP 4

Clean the heat press bed and top before turning it on. This will help with making sure that no ink, dust, lint or other foreign material will ruin your project.

PRINTER MAINTENANCE 3

For those that have the eco tank printers... Sometimes, your printer may stop printing or you may notice certain colors are not coming through correctly. You will need to perform maintenance on the printer to purge the air and get the ink to flow again, allowing you to print.

A Youtube video for the tank type printers will demonstrate the process on how to fix this issue,

How to push air/ink through the printer:
<https://youtu.be/zHPvVG9q48l>

POLY-T PLUS

Poly-T Plus is a 1-step formula that removes chemical sizing and coats cotton fibers with a polyester resin in one spray. Since this 1-step spray is pressed wet to dry, it will allow you to prep and sublimate a shirt in 5 minutes.

You can do a search for Poly-T Plus to find where you can buy it, and more information than this tip sheet can provide.

SUBLI-FLOCK 5901

SUBLI-Flock 5901 is a heat transfer vinyl that allows bright dye sublimation colors to be pressed on. After pressing to this material which is white based material that can be used to print on darker color material.

For more information, please visit the website link:

<https://www.heattransferwarehouse.com/subli-flock-5901>

PRINTING TIP 4

The ink from the sublimation transfer paper will leave ink on the transfer, it will not transfer all of the ink to the surface. The sublimation transfer paper can only be used one time.

SAFETY TIP 4

Do not use the oven you use to cook food in, to use as a sublimation oven. The chemical release from sublimation can linger and attach to foods. No one needs an ambulance to show

Buy a standalone mini oven to use for this craft. There are also specific ovens made just for sublimation printing that you can search for.

PRESS TIP 5

When printing a sublimation project, you will want to use a butcher paper on the top and bottom of the sublimation print. This will absorb any ink that may bleed through the sublimation print. It will help keep the heat press from coming in contact with the ink. Use new butcher paper after each press, to make sure no new projects get ink on them from the last print.

Do not use wax based parchment paper or paper that is meant for the standard heat transfer.

EPSON PRINT SERIES PRINTING SETUP

Go to - Print
Click - Preferences
Click - Paper Source
Set - Paper Size
Change paper type - to PREMIUM PRESENTATION PAPER MATTE
Change Quality - to HIGH
CLICK - More Options Tab
UNCHECK - High Speed
CHECK - Mirror Image
Click - Color Corrections, Check - Custom
Click - ADVANCED, change color mode to ADOBE RGB
Set - Gamma - to 2.2
Hit OKAY
Then Hit OKAY again
Then Print

When you are creating your projects, do not select to mirror image, you set it up to MIRROR automatically for every print above..

EASYSUBLI - HEAT TRANSFER VINYL

Siser has created a process that will allow a matte heat transfer vinyl that is used with sublimation inks. It helps with printing on darker polyester and cotton blends.

Please refer to their website to learn more information on this topic.

<https://www.siserna.com/easysubli/>

FILE BACKUPS

Computers crash, mess up files and do cause other issues. It is best to copy your files and programs to external hard drives or USB drives. Always be prepared for the worst.

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EPSON FIRMWARE NOTIFICATIONS

If you are wanting to stop the Epson firmware notifications from popping up on your computer, there is a Youtube video that walks you through the process to turn them off.

<http://bit.ly/DisableEpsonUpdateChecks>

MOCKUPS

if you have an account with wholesale distributors- some of them (like SanMar) offer a free program to upload your design on their mock ups.

If you are a photoshop user, you can do a search for Mockup's PSD to find sites that offer free templates that make it easy to put your designs on people and other objects, like phones, tablets, computer screens and tv's.

PRINTING TIP 5

When you print a project, before it is used on the heat press, the ink will not appear to be vibrant, it can appear dull. Do not let them upset you, once you add heat to it and the shirt, the faded colors will change to the correct color and become brighter, if pressed correctly with heat.

GHOSTING

"Ghosting" is the term for what is known as a shadow. Ghosting occurs when the sublimation transfer paper shifts on the paper using to protect the bed of the heat press, during the sublimation process or when the heat press surfaces are exposed to residual ink. Ghosting can manifest after several common sublimation mistakes.

The easiest way to prevent ghosting is to tape the sublimation transfer paper to the butcher paper to keep it from shifting or bunching up. Please note, air can force both pages to shift, even when taped, but taping does help reduce that from happening. A best practice is to position the butcher paper and sublimation transfer paper in the heat press and make any adjustments before closing.

IMAGES RIGHT SIDE UP

To save yourself material, double check that the sublimation transfer is in the correct position and that it is right side up.

PRINTING TIP 6

To help prevent the ink from printing and bleeding to the back (or front if printing on the back) of the shirt, if you don't have a heat press that allows you to put the t-shirt in a position to just have the side you are wanting to print on, use a flat piece of cardboard or another material that will prevent the ink from reaching the second surface. This will also help prevent the ink from reaching the heat press bed.

LINT ROLLER

Purchase the type to remove hair, that tears off, better chance of getting all the lint and foreign debris removed from the printing surface.



RESEARCH

Technology changes daily, for computers, printers, medicine and even for sublimation printing. One should always keep researching your hobbies as there may be new processes that may help you.

Search Youtube to watch videos and Google sublimation printing, which may display new information or show new techniques that you may not have been aware of how to do it.

Everyday, someone is coming up with ideas on what can be sublimated on, companies are releasing new products that will help you sublimate on different materials. People experiment with those new products and try new ways, so don't limit yourself, do research often.

TIME & TEMPERATURE

It is best to do a internet search for sublimation printing material times and temperatures. All heat presses are not the same, some get hotter than others. Most sites give an estimate of time and temperatures, but you will need to go through trial and error to learn the best settings for your heat press.

FOREVER SUBLI

A new heat transfer paper that allows you to print images on white backgrounds, using sublimation ink to transfer the image.

Search the internet for (forever subli) for videos, information and where it can be purchase.

STORING SUBLIMATION PRINTS

Although it is recommended to print the sublimation prints right after it leaves the printer, it is possible to store the sublimation prints to use another day.

They can be put in a folder, or in a storage container, but do not put them in a position where the ink is facing each other. They should be stored in a dry and dark place to keep them from fading.

TEFLON

Teflon is not recommended with sublimation. It keeps moisture in, which could transfer to other projects if you use the teflon.

Use a non waxed butcher paper for doing sublimation printing. Use new sheets for each pressing.

PRINTER AND PRESS

It is best to have all printers located away from the heat press or any kind of heating vent. The inks in the printers do not do well around the heat and will degrade the quality of the ink over a period of time.

PRESS TIP 6

After pressing, make sure you remove the transfer paper immediately. This will keep any ink residue from touching other parts of the printed surface or the press bed.

WHITE GLITTER - HEAT TRANSFER VINYL

Siser has a Heat Transfer Vinyl that will allow glitter to be sublimated on shirts.

Please refer to their website to learn more information on this topic.

<https://www.siserna.com/heat-transfer-vinyl/glitter/>

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EPSON PRINTERS THAT CAN BE CONVERTED FOR SUBLIMATION PRINTING

Printers need to have a piezoelectric printhead to be suitable for sublimation. Sublimation ink needs to be purchased separately from the printers listed.

Epson has released printers that are designated as sublimation printers, the F170 and F570.

WORKFORCE SERIES:

2630, 2650, 2750, 2760, 2860, 3540, 3620, 3640, 7010, 7110, 7210, 7510, 7520, 7610, 7620, 7710, 7720

ECOTANK SERIES:

2500, 2550, 2600, 2650, 2700, 2720, 2750, 2760, 3600, 3700, 3710, 3750, 3760, 4500, 4550, 4700, 4750, 4760, 15000, 16500

EXPRESSION: XP

320, 420, 424, 960, EXPRESSION PHOTO HD XP-15000, STYLUS C88+, ARTISAN 1430

SUBLIMATION OVENS

One can use a sublimation mug press to do one mug at a time, but there is another option that would allow you to do more than one item at a time. You can use a convection, a 3D Vacuum Heat Press or a professional grade oven. The needs of your hobby or business will dictate what is the best option to go with.

For this tip, we will go with selecting the convection oven tip. There are a few things you will need to look at to make sure you get the correct oven for your needs.

For the tallest item that you will want to do the sublimation printing on, use a tape measure to find out how tall it is. When you search for a convection oven, make sure the height exceeds the measurement you took. There are many types of convection ovens, different heights and widths, depths, so not all will work for your needs. If you go to a store to look at there convection ovens, use the measurements you took of your tallest item and measure.

Make sure the convection oven you select will exceed 400 degrees. Most will go up to 500, but not all ovens will be accurate on what is set it is set to. Purchase an oven thermometer to help you make sure the temperature is reaching and maintaining 400 degrees for the pressings.

Make sure the convection oven has a good fan, you need the oven to circulate the heat evenly, not just the top and bottom.

Make sure the convection oven has solid, sturdy racks. You want the racks to be of good quality, not flimsy, it will provide a better base with putting mugs and other items on. Many use the convection oven for doing sublimation printing on other things than mugs. Plates, tumblers, phone cases are also pressed in the oven.

As stated in a previous tip, do not use the oven that you cook food in. Sublimation printing is the process of the ink releasing gasses onto the printed material, Keep your hobbie out of your food, it could be a hazard.

PRESS TIP 7

Put a hot pad on top of the heat press to allow you to put your left hand on the press to open it slowly. Otherwise you will get ghosting.

Also tear the edges of the design to keep from getting the press marks from the edge of the paper.

PRESS MAINTENANCE 2

With constant movement of the press, up and down or side to side, a press can loosen up, causing the top and bottom of the press to become uneven. and it will cause the press not to press evenly.

You will need to get an allen wrench, socket wrench or screwdriver to tighten all of the bolts or screws on top of the press, (while it is cool).

STAY POSITIVE

There is so much to learn, so many things that you can do with this type of printing. It can be overwhelming, but the great thing is you can go at your own pace. There are a lot of great videos on Youtube and people are always willing to answer your questions of Facebook. Sometimes, mistakes can lead to the ah ha moments, making it worth the struggle to learn software, processes, materials, and the heat press.

Just think of the smiles on the faces of those that will be receiving the items you are making.

SUBLIMATING MUGS

1. Set your oven temperature to 400.
2. Size your image using a template and cut the transfer paper to size. If you're sublimating an image on both sides of the item, cut out 2 separate transfer pieces in order to position each one correctly on your item. Be sure that the transfer paper is taped securely against the item to prevent a blurred image.
3. Cover the item with a second piece of plain paper to prevent bleed thru inks from getting onto your wrap.
4. Attach a silicone rubber wrap and place the item on its side, taped side down, in your oven.
Note; The bottle wrap and adjustable mug wrap will both fit when adjusted correctly.
5. Heat for approximately 6 minutes.
6. Remove the wrap and submerge the item in room temperature water. The transfer paper can be removed before or after placing into water.

NOTE: An oven thermometer is highly recommended for a precise temperature reading and optimum results.

