

DTF

User manual



BRILDOR
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INTRODUCTION

DTF is a printing technique that employs special inks, similar to those used in Direct-to-Garment printing. But unlike DTG printing, the ink will be printed on a film, and special powder will be used as an adhesive.



Pros

- The starting investment is much lower than that of DTG printing.
- Versatile application on both textile and rigid surfaces.
- Elasticity of the material once printed
- High durability and washing resistance
- On-demand printing without stock

Cons

- Regular maintenance is required to prevent clogging of the printhead.
- Slow printing system (A3 15-20 min).
- Low garment breathability.



WARNING

This device wasn't originally designed for this technique. Therefore, the printer loses its warranty as soon as the inks are loaded. Due to the sediment of the white ink, you will have to maintain the system periodically, and it may shorten printhead durability drastically. Please follow the maintenance tips.

EQUIPMENT NECESSARY

Find here explained the equipment required to apply this technique. Our pack includes everything apart from the press.



PRINTER

A regular printer, modified in order to print with DTF inks



DTF INKS

Similar to high-elasticity textile inks but more diluted



DTF POWDER

An adhesive powder required to stick the inks to the fabric after a curing process



PET FILM

A support capable of carrying the wet and apply the powder afterwards



RIP SOFTWARE¹

The software necessary for accurate prints



HEAT PRESS

A heat press is necessary to cure the powder and to apply the transfer

¹ Use and installation of Acrorip is explained below.

² Find a wide range of heat presses on our online store: <http://bit.ly/3cBvKrC>

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QUICK START GUIDE



1. Ink charging

After unpacking the printer, shake and charge the DTF inks in the tanks. Make sure to load each ink into the right tank. Use a funnel if necessary to prevent spills.



2. First charge

Once the inks are loaded, connect the printer to an electrical outlet and press the ink button for a few seconds to start charging the system. This will take a while. Do not turn off the printer during this process.



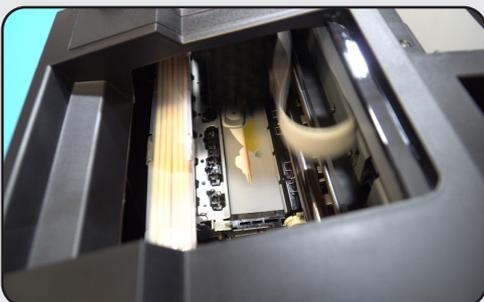
3. Driver installation

You must install the driver. We will provide you with the file, but you can download it from the manufacturer. Follow the steps on your screen for a successful installation.



4. RIP installation

You need RIP software for the printer to read and print the image properly. See the detailed installation process below.

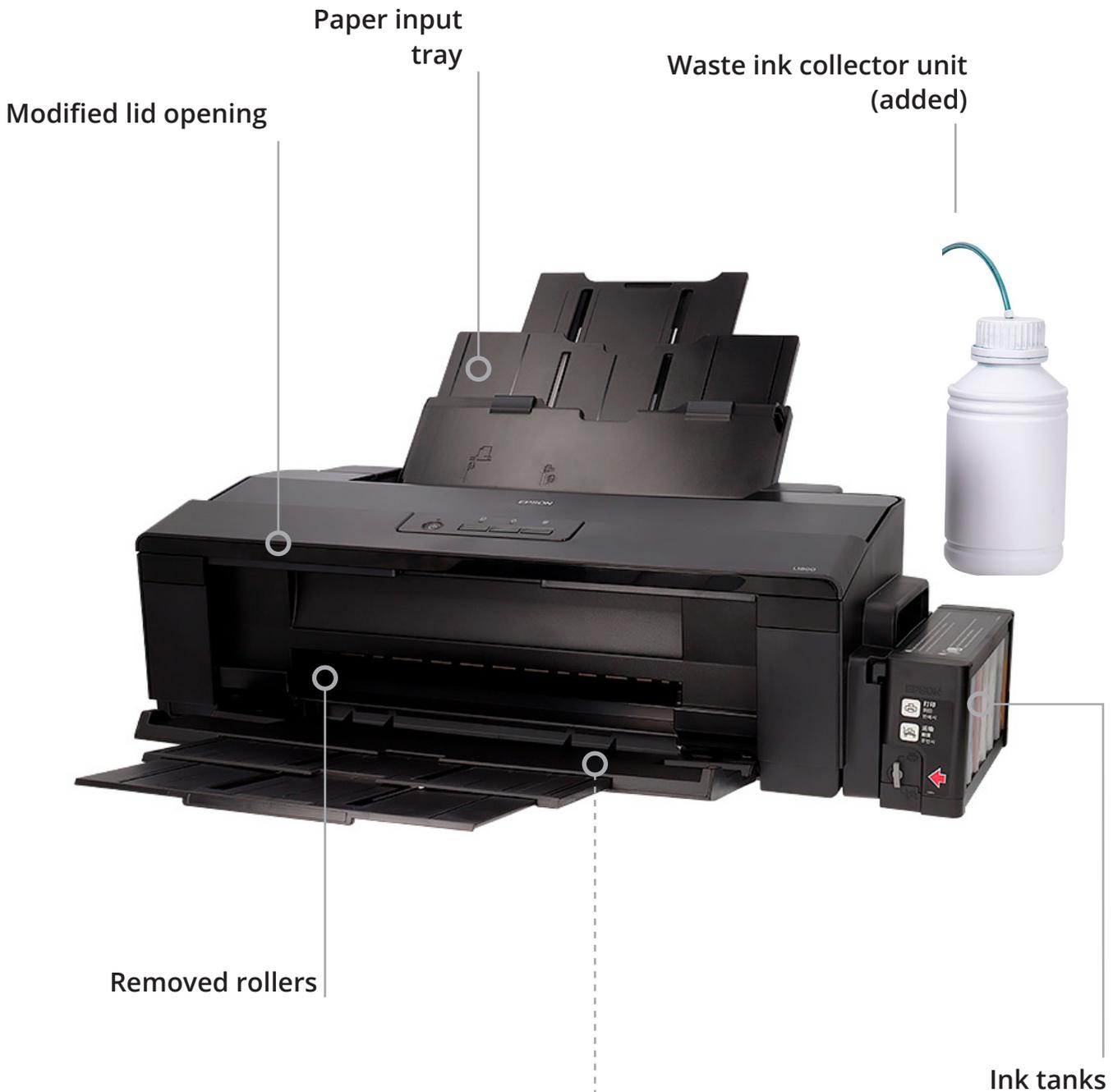


5. PRINTING

Having prepared the images, you can now print on the film, apply the powder, cure, and finally transfer them onto the garment.

PARTS

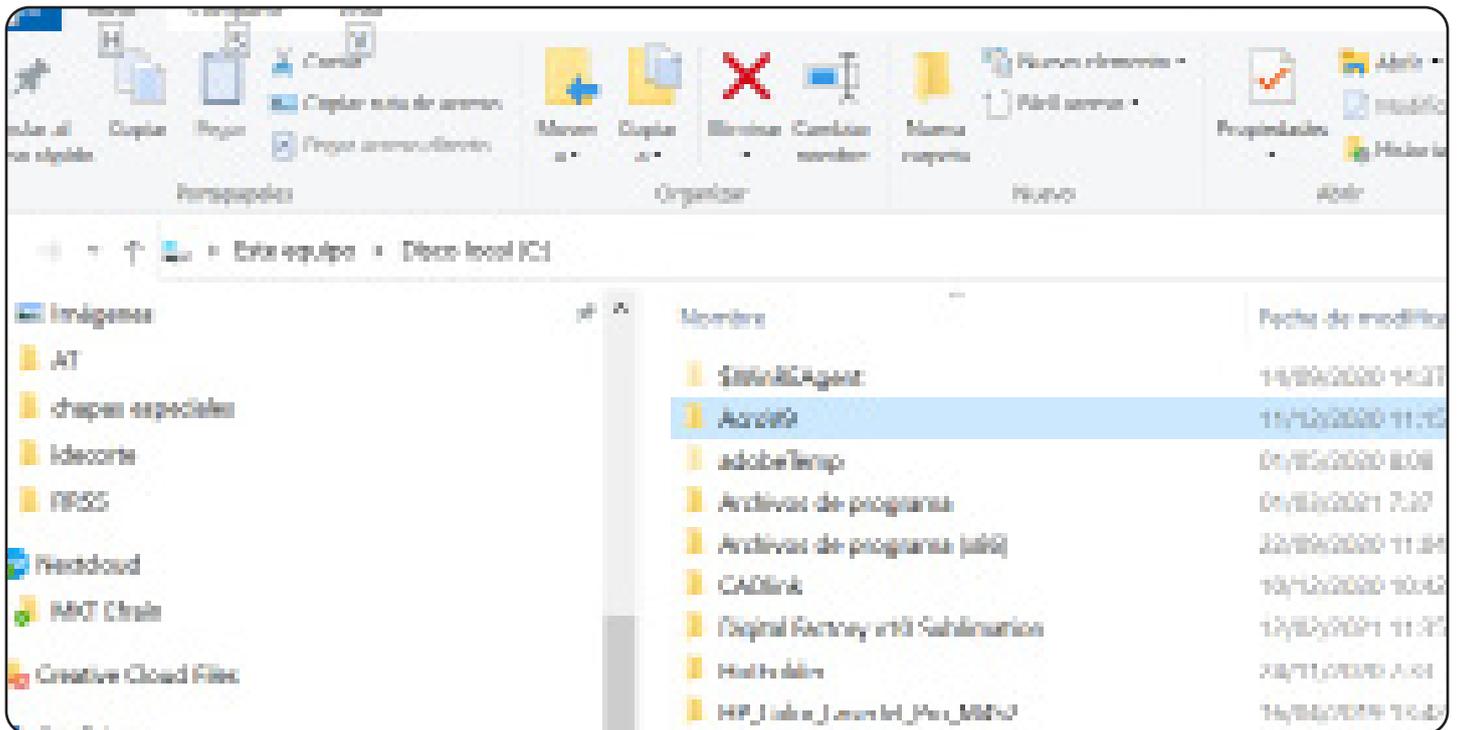
The printer has been modified for DTF printing and prepared to work without leaving any marks. That is why we've removed the rollers, added a waste ink collector unit for cleaning, removed the lid opening sensor, labelled the white tanks, and added a tray for the paper to exit horizontally.



The paper must come out completely flat, so the output tray has been replaced to ensure that it does.

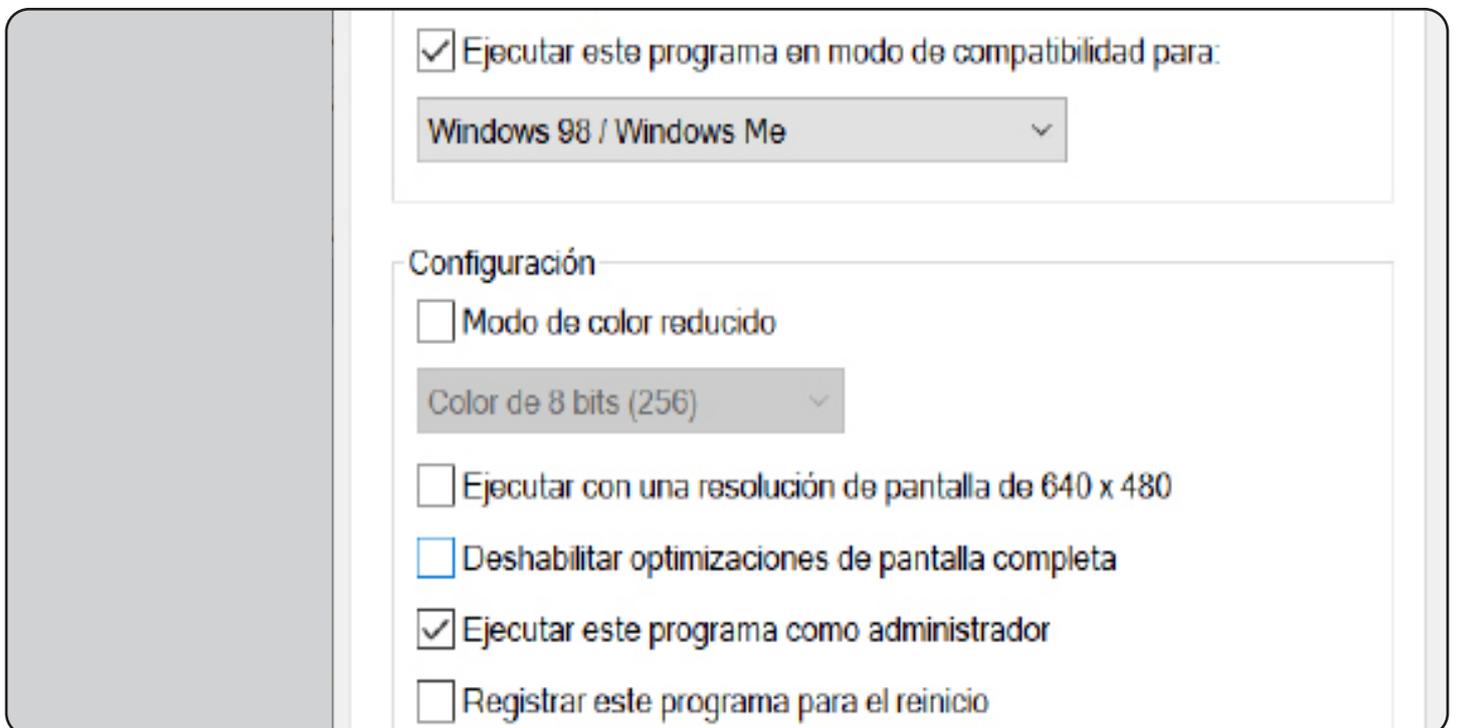
ACRORIP INSTALLATION & USE

1. INSTALLATION



Turn off your antivirus. Unzip the AcroV9 folder in C: (your PC's primary hard drive) You must add the files **Acro90.exe** and **Acro90W.exe** as an **exception to your antivirus**, or you won't be able to use the RIP.

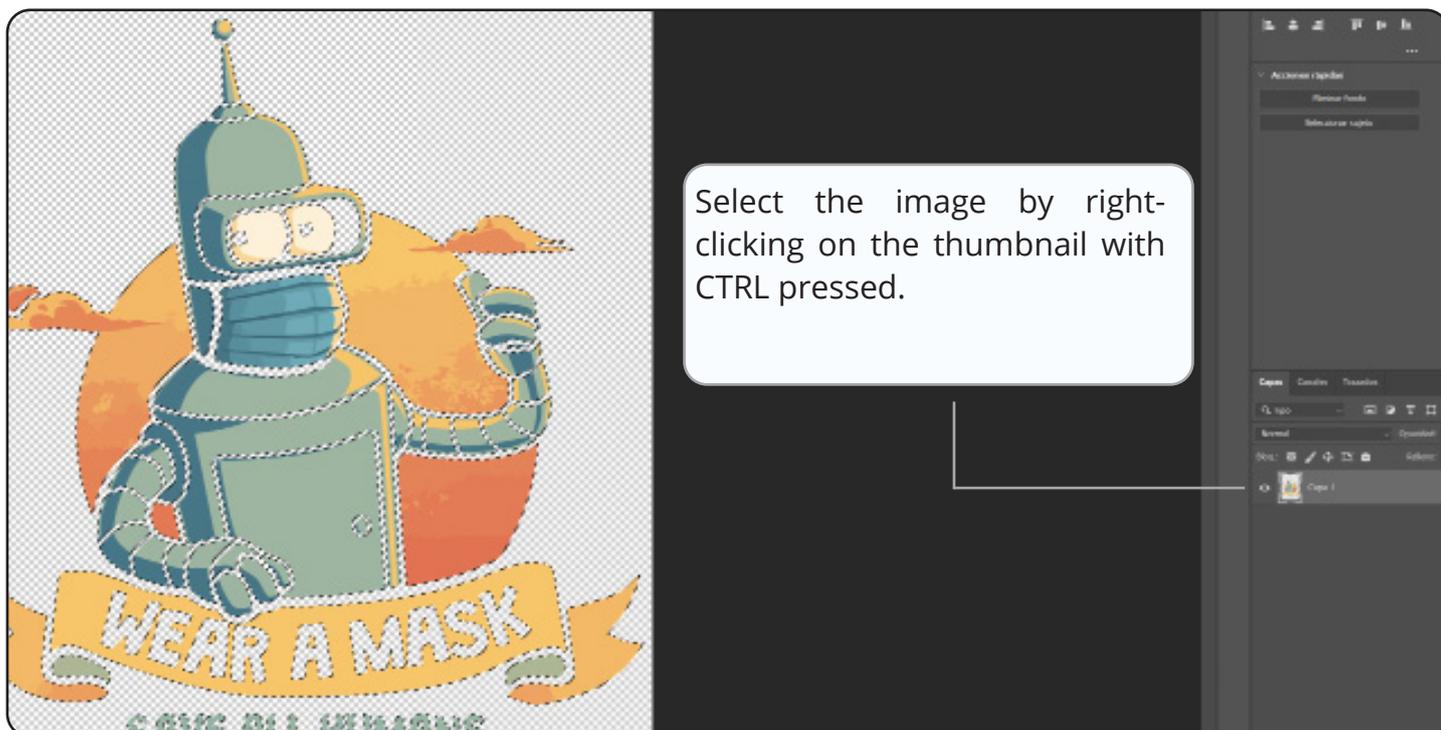
Insert the Dongle (USB) in your PC to make it work.



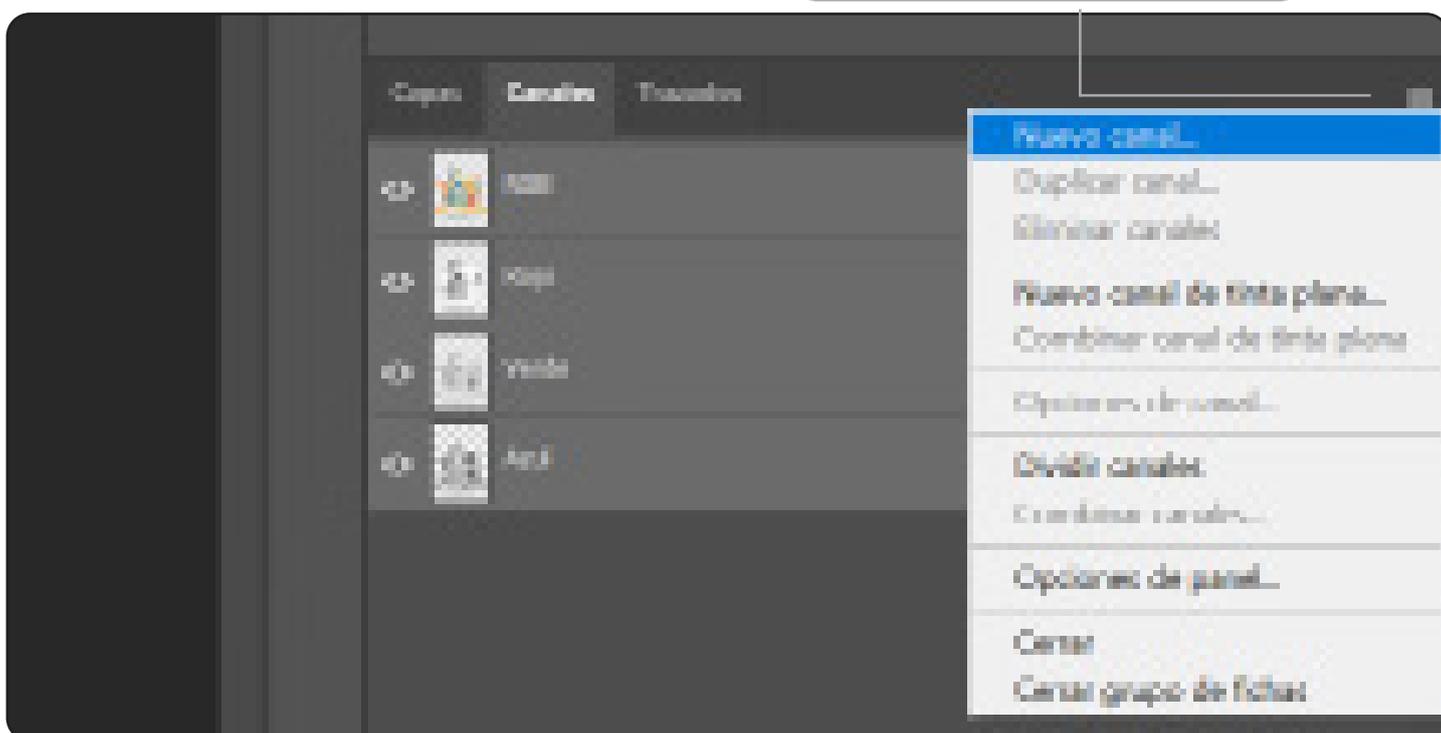
Right-click on **Acro90W.exe** and click on Properties. Go to the Compatibility tab and activate **Run this program in compatibility mode for Windows 98/ Windows Me**. Select **Run as an administrator**. Do the same with **Acro90.exe**.

2. CREATING A SPOT COLOR

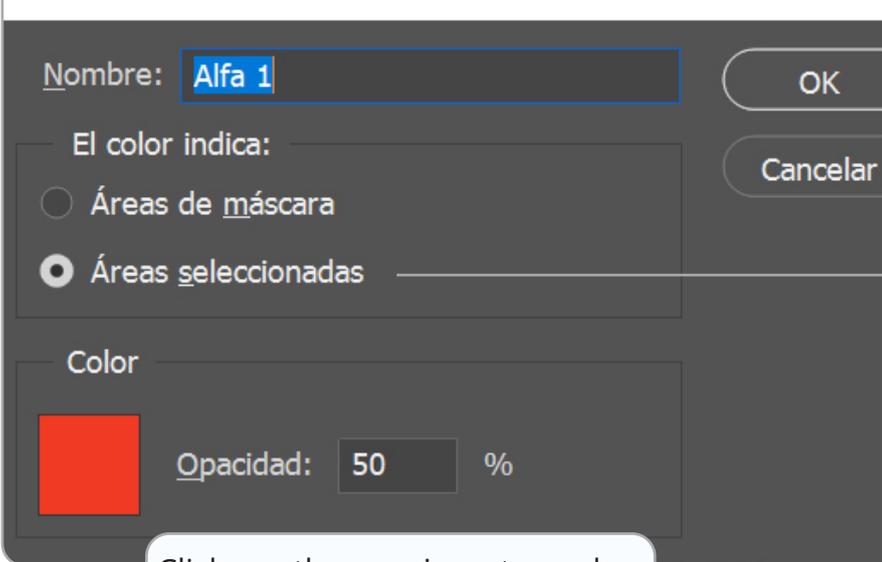
Although you can import any image into Acrorip, we recommend using Spot color for the lower layer of white ink. To create it, you will need to open the image in Photoshop with no background.



Go to the Channel tab, click on the three stripes and choose New channel

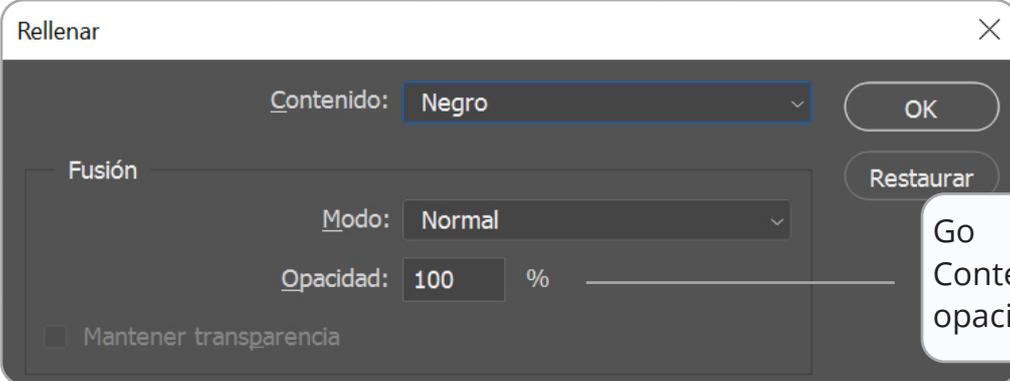
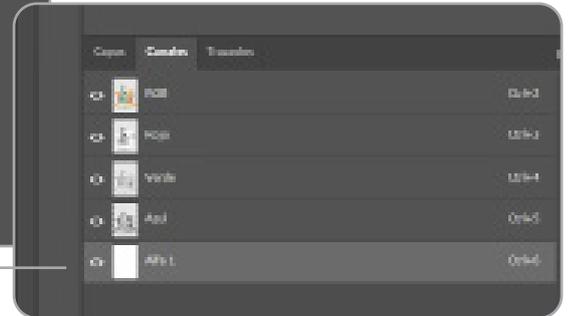


Nuevo canal

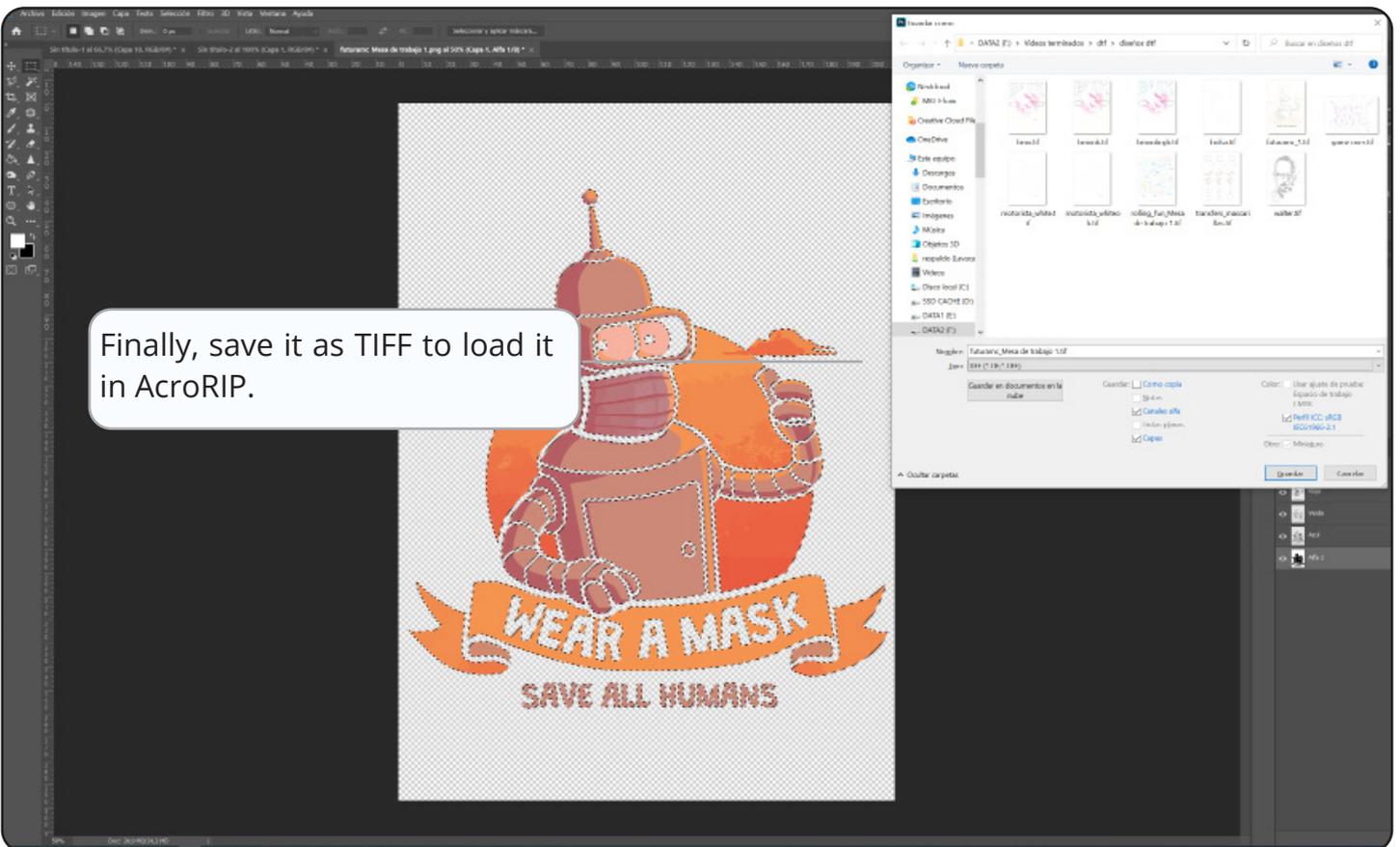


The new channel must be of the selected areas. You can select the colour you want with an opacity of 50% to be able to see underneath.

Click on the eye icon to make the layer visible



Go to Edit/Fill and select Contents: Black and 100% opacity



3. USING ACROPRIP

Here we will explain the use of Acroprip. However, the parameters are approximate, and it is necessary that you make your own tests to achieve optimal results.

Open the image, and it will appear in your workspace



Image Information

Image Size	1004 x 2203 pixel
Resolution	220 x 220 DPI
Mode	RGB
File Size	22.9 MB
Original Size	21.81 x 29.71 cm

Ready

Layout Tab

Make sure mirror mode is activated

Here, you must set the paper size

Here, you can see the size of the design

Here, you can select the copies, the repetitions and the margins

Layout	
Paper Size	
Width	29.700
Height	42.000
Original Size	
Width	21.000
Height	29.700
Output Position	
X	1.000
Y	0.500
Output Size	
Width	20.044
Height	19.000
Scale	
Equal Proportion	TRUE
Copies	
Copies(White)	1
Copies(Color)	0
Repeat	
X	1
Y	2
Distribute	Spacing
X Spacing	0.000
Y Spacing	0.200
Pattern	Normal

Layout Printer Color White

Printer Tab

You must choose the Stylus Photo 1390/1400 printer, and under **Port**, your selected printer

Check paper size must be OFF

The recommended white and colour resolution is **1440x720 DPI**, but you can increase it for white to get more opacity

Printer	
Printer	Stylus Photo 1390/1400
Port	USB004 - EPSON L1000 Series
Spooler	Start printing immediately
Check Paper Size	OFF
Setup	
Resolution(White)	1440 x 1440 DPI
Resolution(Color)	1440 x 720 DPI
Image Type	Photograph
Feeding	Sheet
Speed	Exhaustion
Print Image Basemap	FALSE
Ink	
Color Dot Size	Min
White Dot Size	Min

Color Management Tab

Under **Ink Channel**, you must select **YKWWMC** for it to interpret white properly

Ink limit allows you to choose the percentage of colour and white ink you want to print. You can also choose the percentage per colour. We recommend starting at 40% for colour and 50% for white. Watch out for excess ink!

The colour profile we will use is **CMYK.icc**. Select it to ensure accurate printing.

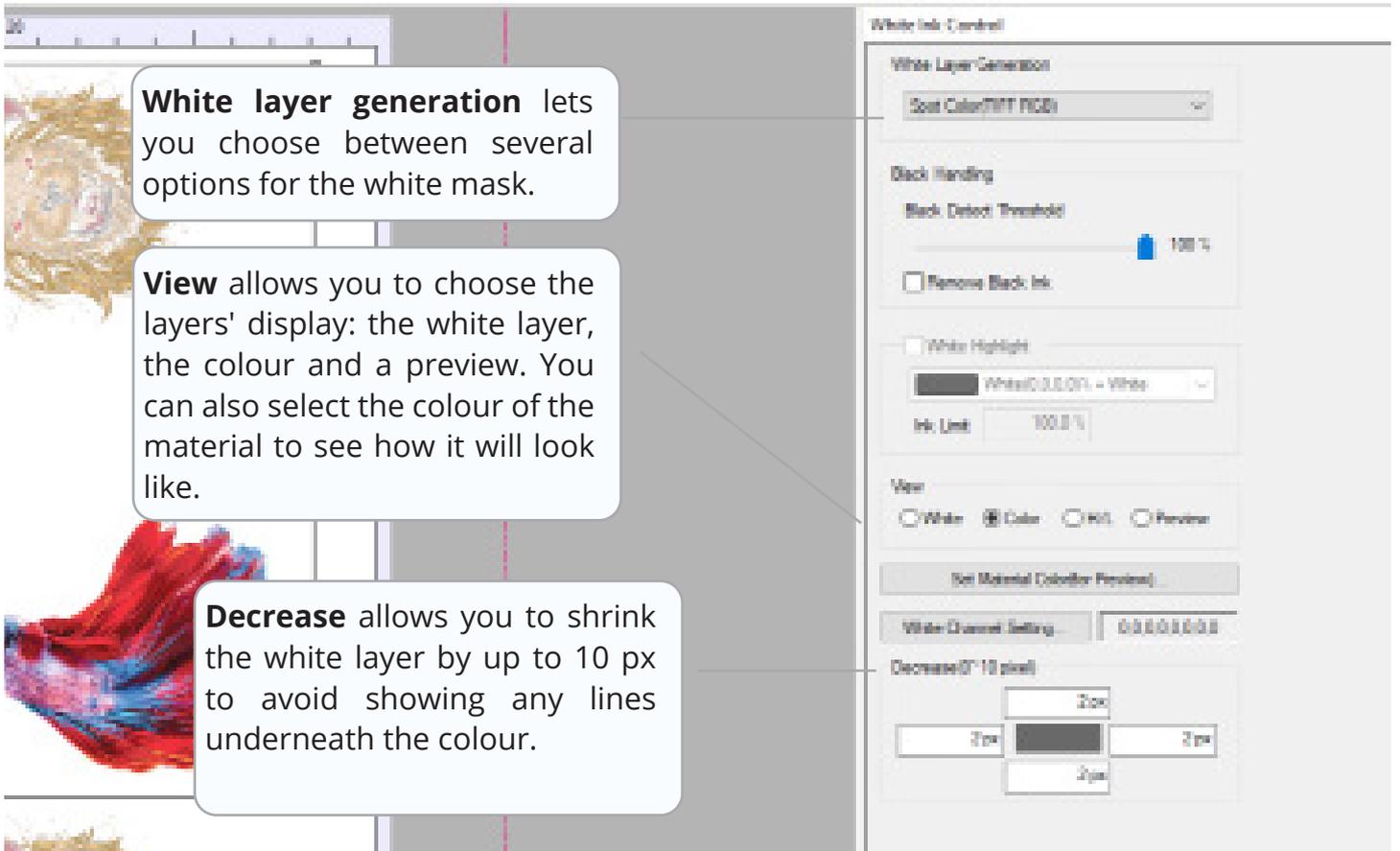
Print Setting	
Use Defined Print Setting	
Initiator	None
Select	
Ink Channel	YKWWMC
Ink Limit	40.0 % (Max 100)
Color	00.0 %
Magenta	00.0 %
Yellow	00.0 %
Black	00.0 %
Red	00.0 %
Blue	00.0 %
White	50.0 %

Input: 0 Output: 0

Brightness: 100 Contrast: 100

ICC Profile: CMYK.icc

White Ink Control Tab



White layer generation lets you choose between several options for the white mask.

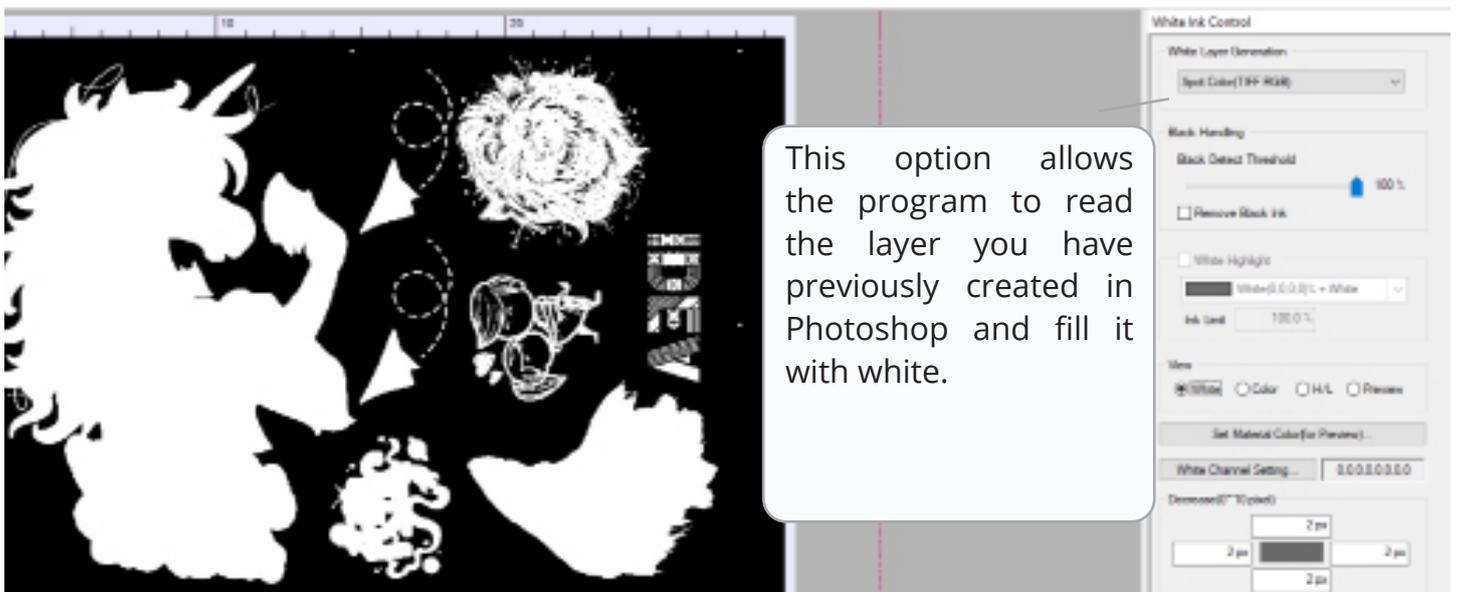
View allows you to choose the layers' display: the white layer, the colour and a preview. You can also select the colour of the material to see how it will look like.

Decrease allows you to shrink the white layer by up to 10 px to avoid showing any lines underneath the colour.

The screenshot shows the 'White Ink Control' panel with the following settings:

- White Layer Generation: Spot Color (TIFF RGB)
- Black Handling: Black Detect Threshold: 100%, Remove Black Ink: unchecked, White Highlight: unchecked
- View: White (unchecked), Color (checked), HSL (unchecked), Preview (unchecked)
- White Channel Setting: 0.000000
- Decrease: 0 px

Spot Color (TIFF RGB)

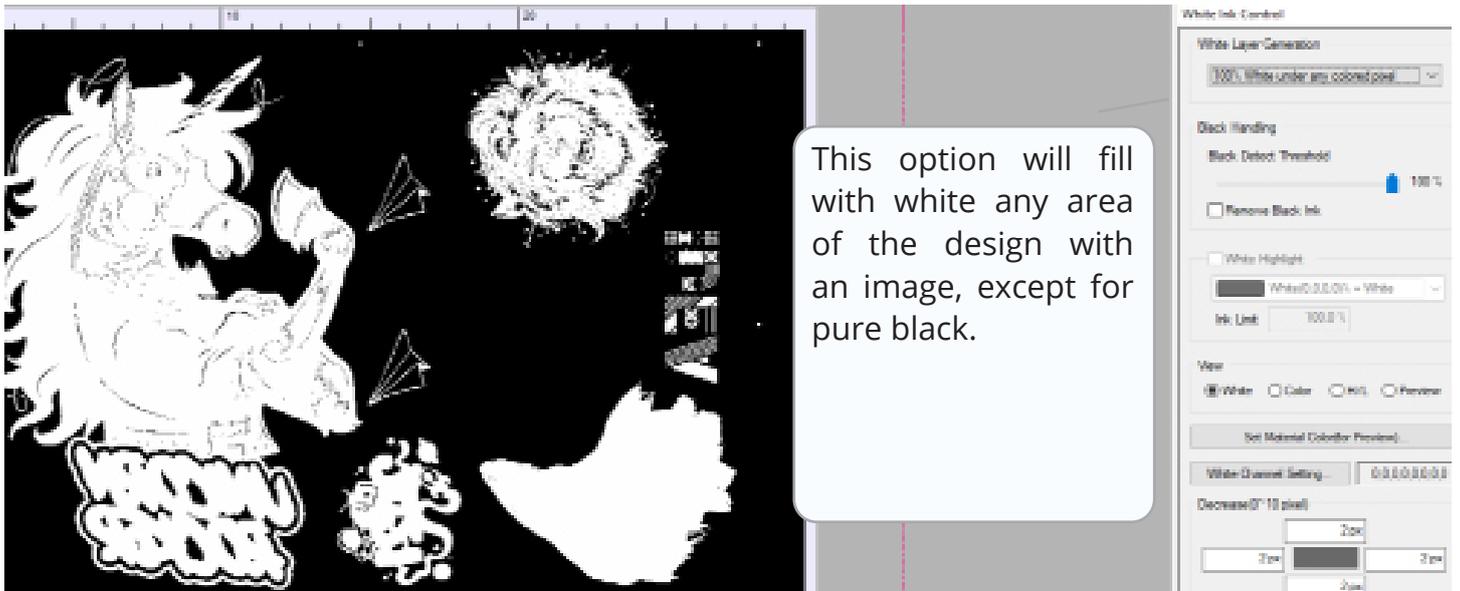


This option allows the program to read the layer you have previously created in Photoshop and fill it with white.

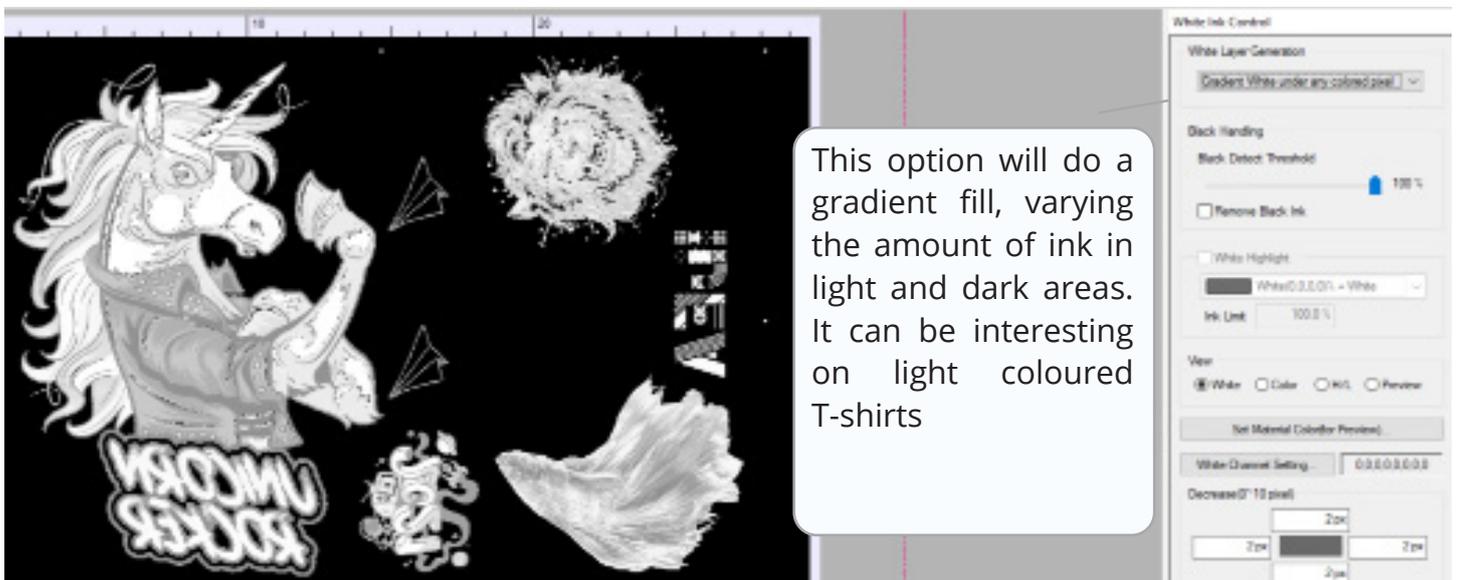
The screenshot shows the 'White Ink Control' panel with the following settings:

- White Layer Generation: Spot Color (TIFF RGB)
- Black Handling: Black Detect Threshold: 100%, Remove Black Ink: unchecked, White Highlight: unchecked
- View: White (unchecked), Color (checked), HSL (unchecked), Preview (unchecked)
- White Channel Setting: 0.000000
- Decrease: 0 px

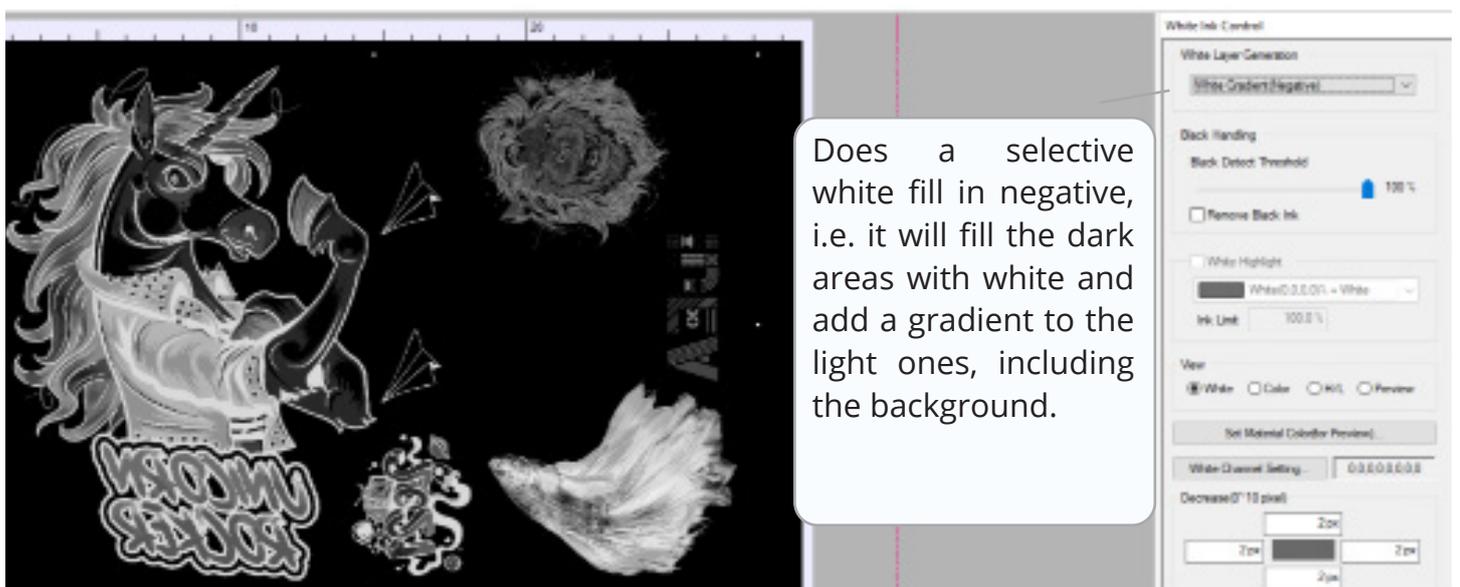
100% White under any colored pixel



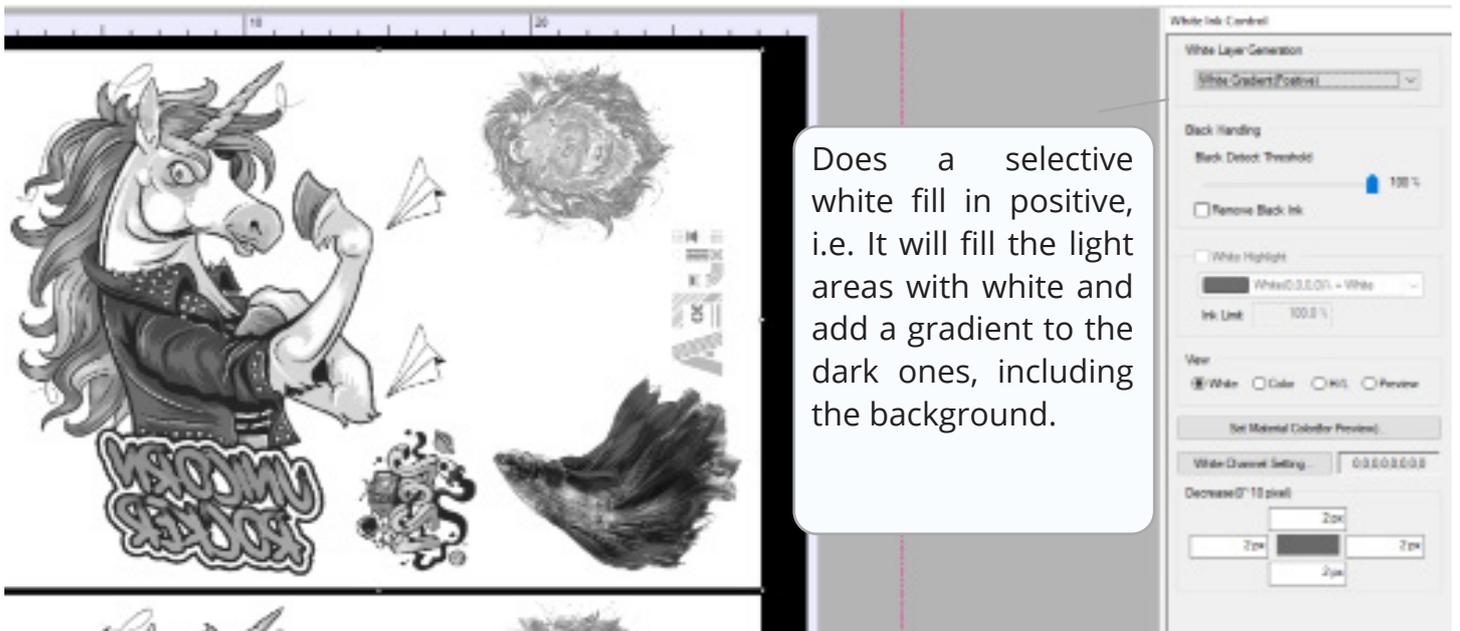
Gradient White under any colored pixel



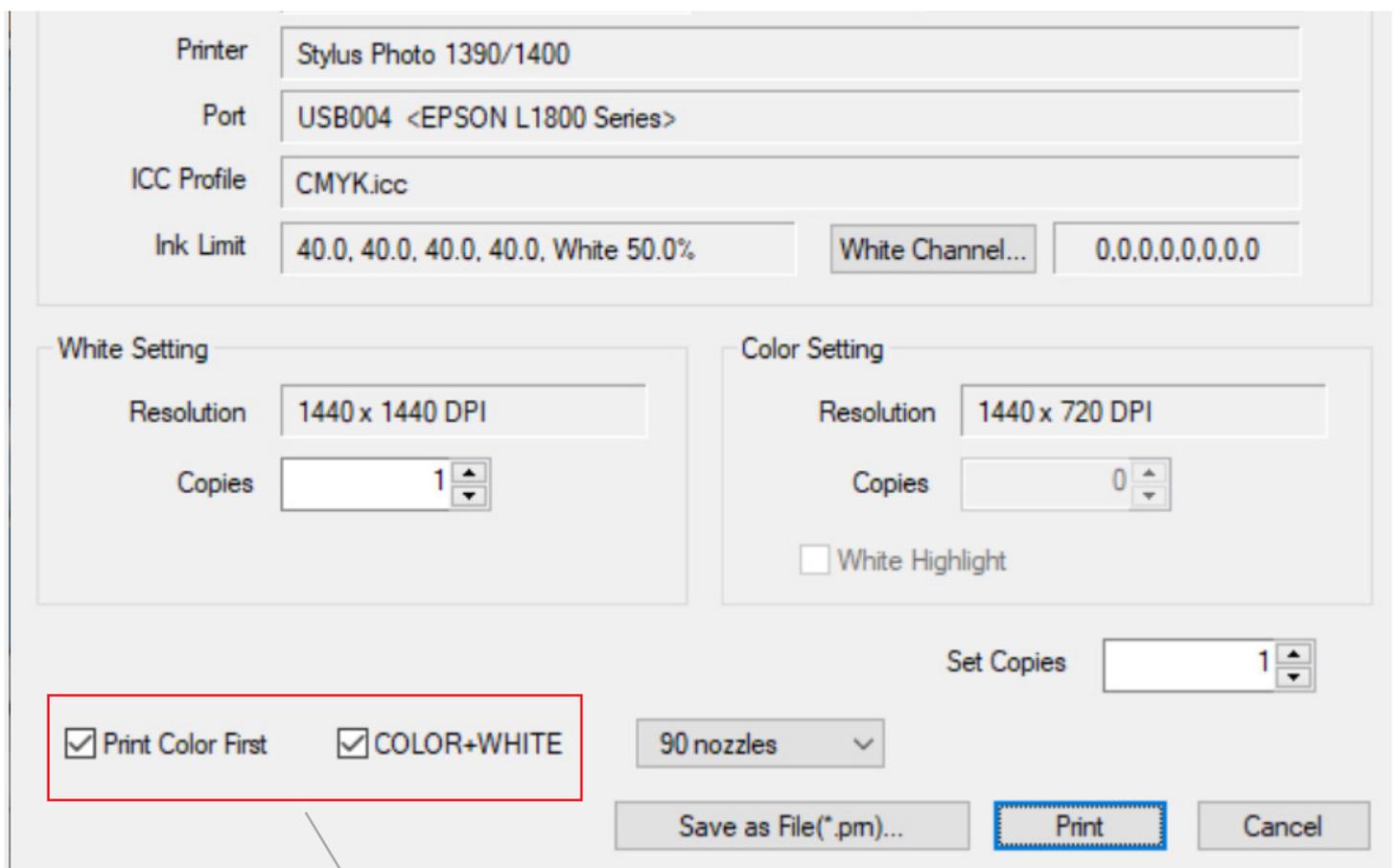
White Gradient (Negative)



White Gradient (Positive)



Printing



Before printing, **Print Color First** and **Color+White** must be selected. That way, it will print the colour first, followed by the white layer, which is the correct thing to do as the image is mirrored. **If you're only printing in white, both boxes must be unchecked.**

4. PRINTING AND PRESSING

The ink is still wet after printing. You must now apply DTF powder which will stick to the film over the wet ink.

Remember to **shake the film vigorously to remove the excess powder** stuck to parts of the sheet with no ink. If you don't, it will show on the fabric when pressing on dark garments.

After applying the powder, **you must cure it** with a heat press, **leaving a space of about 5 cm between the platen and the film**. You can also cure it with an oven or a heat gun.

Depending on whether you will apply it immediately or store it for later, you should use different time and temperature settings.

	TEMPERATURE	TIME
Instant pressing	165°C	120"
Subsequent pressing	190°C	480"

After curing the powder, you may proceed to its application on the garment. Depending on the type of fabric, you will have to choose different time or temperature settings. The pressure of your press should be medium-heavy, about 3-4 bars, and the film must be **peeled off cold** in a slow but steady movement.

	TEMPERATURE	TIME
Cotton	165°C	15"
Polyester	140°C	50"

Time and temperature settings are provided for guidance only. To achieve an optimal workflow, we recommend that you conduct your own tests.

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