ARTISJET INKS
SOFT UV WHITE INK PRINTING ON LEATHER

1. Introduction

For different materials, we need to choose different type of LED UV inks, especially the white inks, which affects the final quality on hard and soft materials. Printing with a hard type of LED UV inks on a soft material will result into a quite easily broken print. While printing with soft type LED UV inks on hard materials, the result will not be stable enough. Therefore, it is very important to choose the correct type of LED UV inks for different materials.

2. Soft LED UV Ink vs. Hard LED UV Ink

	Applications	Main Features
Hard LED UV Ink	Wooden board, Acrylic, Glass, Metal, Crystal, PVC, Ceramic etc.	Reach 3D embossed printing result
Soft LED UV Ink	Leather, Canvas, TPU, PVC etc.	Reach more flexible non-cracking printing results

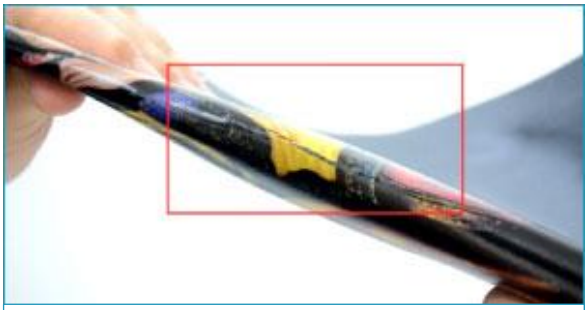

Fig.1 - Hard LED UV Ink printed on leather

Fig. 2 - Soft LED UV Ink printed on leather

3. CASE STUDY: Soft LED UV Ink printing on black leather

3.1. Step 1 – White Ink Printing

Import the new processed image (**Fig. 5**) for white printing into the RIP Software (**Fig. 3)**, set the Output Position, Output size, adjust resolution, white ink limit, white layer generation.

Fig. 4 - Original Image

Fig. 5 - Processed Image

Fig. 6 - Black Material

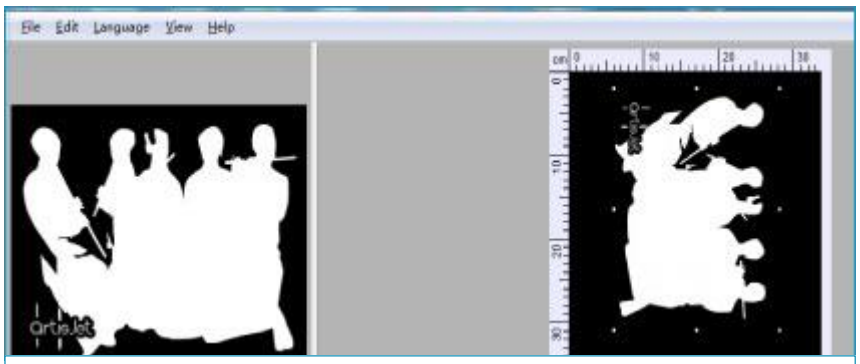

Fig.3 – Processed image for white printing using RIP Software

The surface of the black leather material (**Fig. 6**) is not smooth and that is why the resolution (white) must be set as 1440*1440 dpi or even lower, 1440*720 dpi (**Fig. 7**).

Generally, there are 4 ink channels for white inks and this way a white ink limit can be set around 25% ~ 40%. Once two of the ink channels contain varnish ink and other two channels contain white ink, the white ink limit must be increased up to 50% - 70% (**Fig. 8**).

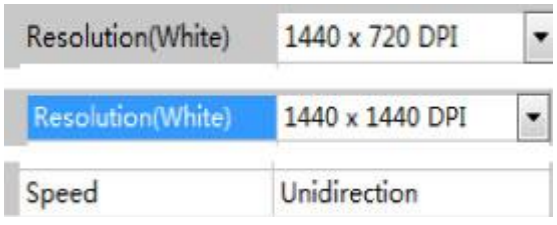

Fig. 7 – Setting the resolution

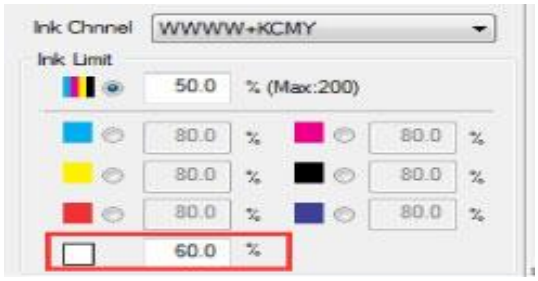

Fig. 8 – Setting the white ink limit

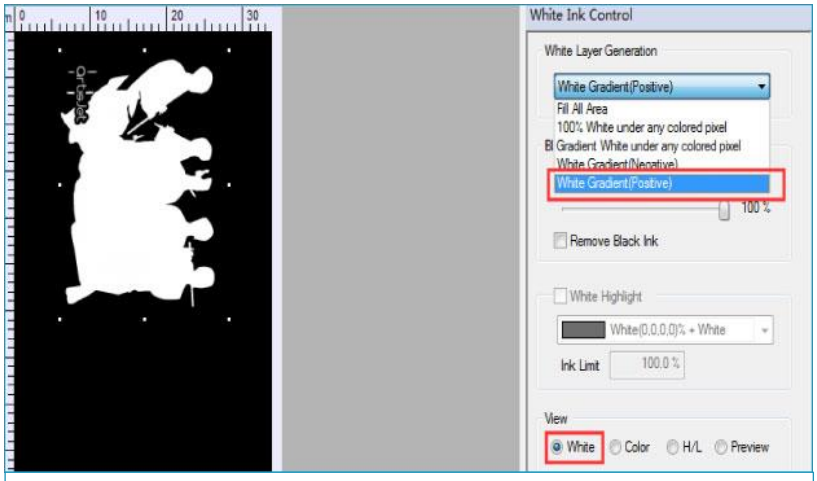

Fig. 9 – White Ink Control with RIP Software

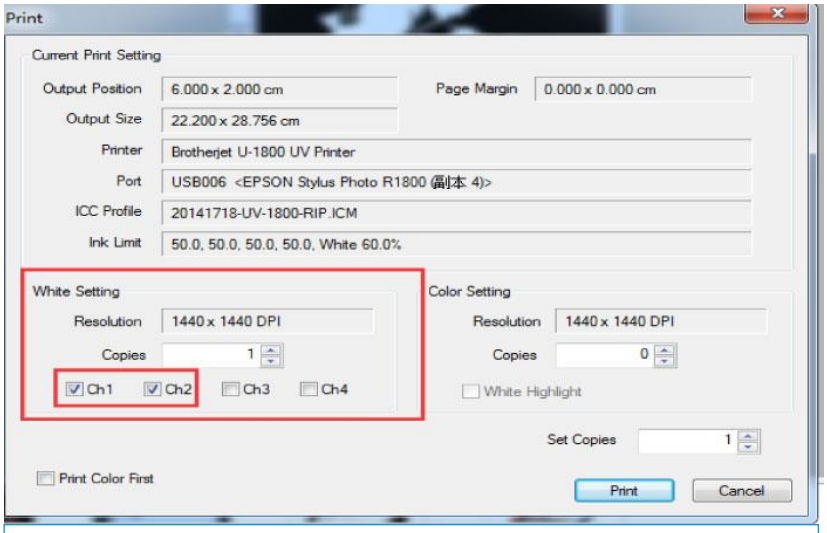

Fig. 10 – Print Setting with Varnish ink

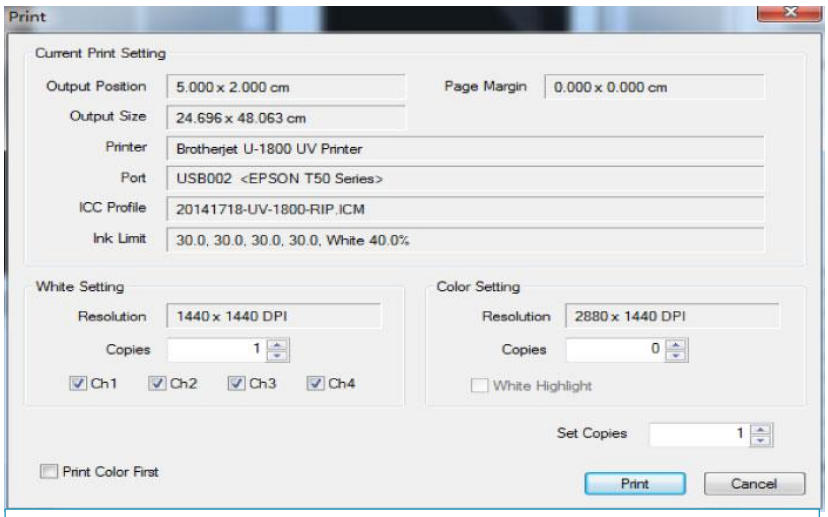

Fig. 11 – Print Setting with 4 White Ink Channels

Fig. 12 – Print result using white ink channels

3.2. Step 2 – Color Ink Printing

After printing the white ink layer, proceed with printing the CMYK ink following the same steps to achieve rich printed colors. Set a color resolution to 1440 x 1440 dpi and an unidirection speed. The maximum ink limit is 200%, but in this case, set the ink limit at 50%.

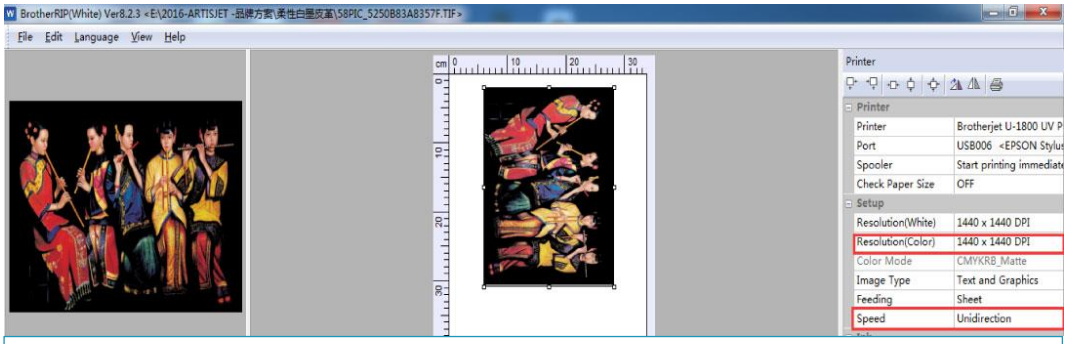

Fig. 13 – Setting the resolution and speed for CMYK ink colors

Fig. 14 – Soft UV ink printing results on flexible leather substrate