

UNINET ICOLOR

The difference and benefits of white underprinting and overprinting

White underprinting:

White underprinting is a technique used where white is placed down underneath the artwork. In other words, a white layer is printed first and then the color image is printed on top of it. When printing in this fashion, the product is considered finished as it comes out from the printer. (No transfers, heat transfers needed)

This is very important when printing color on clear or non-white (dark) media. If you were to print without white on these types of media or substrates, the image would be look washed out. Examples for use would be clear labels, invitations on dark media, clear window cling, decals as made with Uninet Aqua Clear media, and many more

In image 1, a full color image was printed on black paper with a white underprint. You can see the colors are vibrant and spot white was used as a color for the white text and small white areas.

In image 2, the same full color image was printed without white underprint. The colors are muted and look washed out.

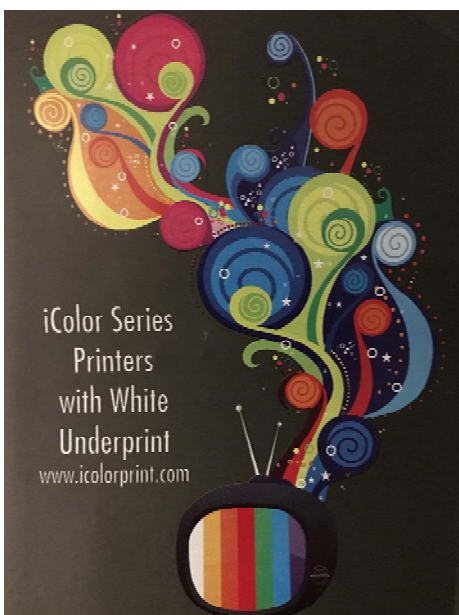


Image 1

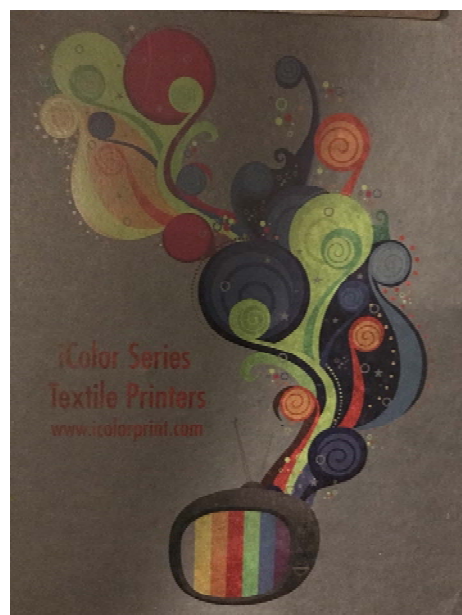


Image 2

Image 3 is the same full color image printed with white underprint, but on a clear transparency sheet. From the back side of the transparency you can clearly see the white layer.

Image 4 is a picture of a sweet 16 party invitation printed on black paper using white underprint, spot white as a color, and foil embellishments. This was taken at an angle so you can see the foil on "Juliana Smith"

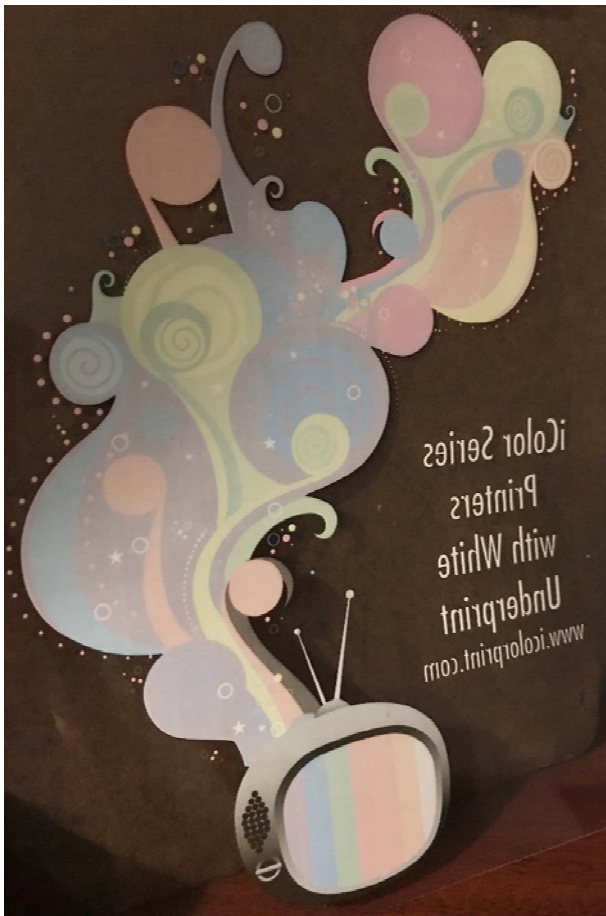


Image 3



Image 4

The above shows why white underprinting is important for printing on dark media but it's also very important for when printing on clear label media so that you don't see the substrate color through the label, which would greatly lessen the visual impact of the label. (Same effect as images 1 & 2)

White Overprinting:

White overprinting is primarily used when printing on transfer paper where the image is mirrored and will be heat pressed onto textiles or hard surfaces. In this case, the color image is printed first, and then the white layer is printed over the color image.

White overprint is used in a variety of ways. When using a two step transfer paper for textiles, the adhesive is opaque white so the white toner acts as a means for a good base for the adhesive to stick to. What does that mean? Adhesive needs a certain density of toner for it to marry properly. Solid, dark colors are usually fine and rarely need white, but most gradients (light colors) are often less dense, so the white becomes very necessary as it fills in the light colors and halftones.

Image 5 is a magnification of a light green letter outlined in a yellow(ish) band. You can see that the toner dots (pixels) used to generate the colors are not on top of each other, but rather next to each other. There are gaps where very little toner is placed. It's these gaps where there isn't much toner and is the reason why the adhesive needs to have white to fill them in.

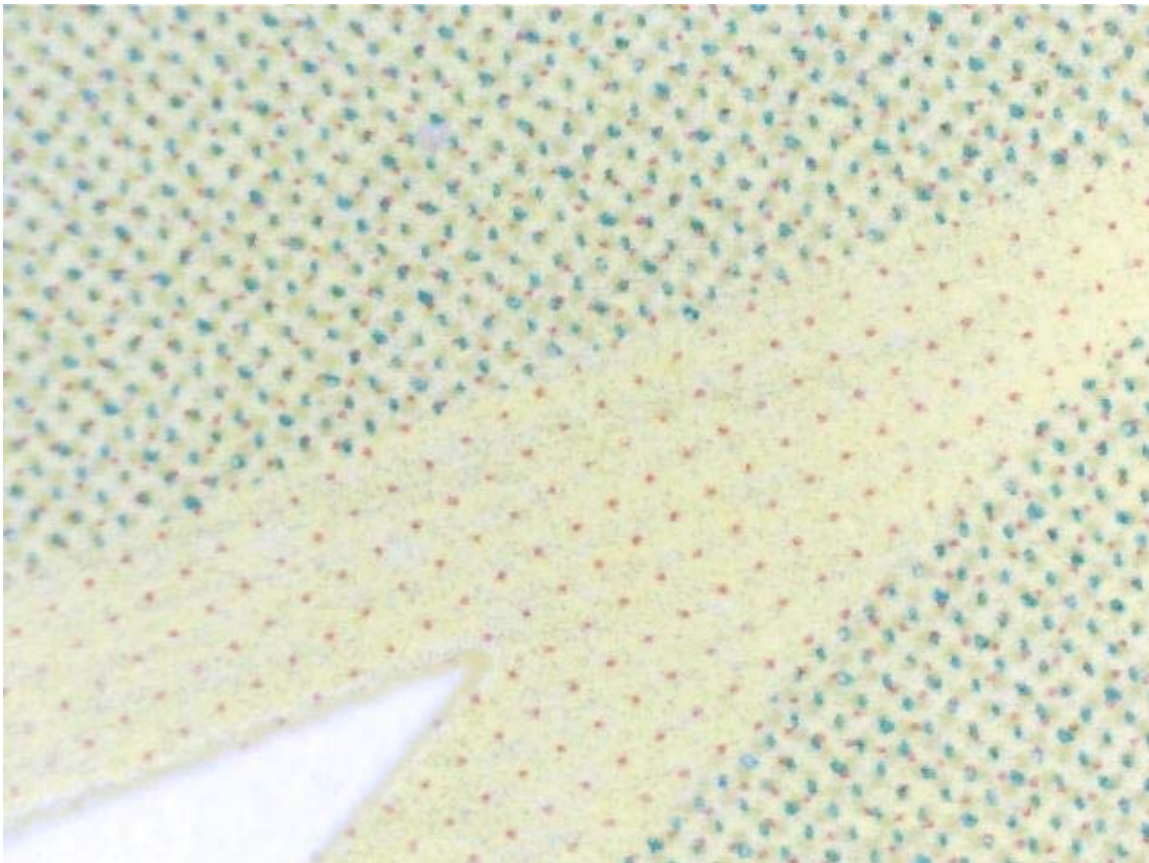


Image 5

At normal magnification, your eye sees a light green letter with a yellow outline. (image 6)



Image 6

When using any type of one step paper (textile or hard surface), there isn't adhesive to provide the white base, so the white toner is responsible for this as well and is very necessary for good color reproduction. In these cases, a full layer (300-400%) of white toner is often desirable for best results.

In some cases you have a choice on which to use!

With some items there is the option of choosing underprinting or overprinting of white as an artistic choice. Image 7 is an underprinted image, pressed onto the back of a glass plaque. This method protects the image from damage but also changes the look, giving it a '3D' effect as you see it through the glass, not on top of it.

Image 8 is overprinted and is pressed on top of the plaque.



Image 7



Image 8

Image 9 is another image pressed onto the top of a black glass plaque, overprinted with white.

