



Application Notes

Preparing and Using White Ink for the VUTEk PV200 W+

With the introduction of white ink on the VUTEk® PV200, it is possible to use white in a variety of useful and creative ways. While some uses require no prepress intervention, some preparation is necessary for spot and shape white printing. While the prepress procedures are not complicated, they need to be done in a specific way to ensure success.

Understanding White Ink: White in Five Varieties

The application of white ink can be divided into five varieties for easier understanding. Following is a brief description of each one.

Pre-Coat Flood:

Pre-coat flood white can be applied to the substrate with no prepress intervention. Pre is selected at the press by the operator. The dimensions of the area to be coated is determined by the dimensions of the file itself. Typically used for printing on colored stock.

Post-Coat Flood:

Post-coat flood white can be applied to the substrate with no prepress intervention as well. It is the same as pre-coat but the white ink is printed over the CMYK, selected at the press. Typically used for printing on clear stock.

Pre-Coat Shape:

Pre-coat shape white can be applied to the substrate with some prepress work ahead of time. Further in this document, procedures for this preparation will be outlined for Photoshop and Illustrator.

Post-Coat Shape:

Post-coat shape white can be applied to the substrate with some prepress work ahead of time also. The procedures for this preparation are the same as pre coat but whether the white is under the CMYK or on top of it is determined at the press.

Spot White:

Spot white is the application of white ink separate from CMYK or in cases where no CMYK exists. If a shape is required, such as a logo or type on a colored or clear substrate, it needs to be prepared using the following instructions.

Prepress Procedures: Preparing White Layers

In normal printing processes, white data areas in image files are translated as none or the absence of ink. The white paper, or ground, serves as white in process printing.

When printing on non-white stock or clear material, we need to apply a white layer first or a white layer last in the case of clear material.

The following instructions will help in the preparation for white printing in Photoshop and Illustrator. The methods can be easily translated for use in other graphics programs.



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Prepress Procedure for Creating a White Ink Channel in Adobe Photoshop

To utilize the white ink function of the VUTEK® PV200 W+ with a Photoshop file, you will need to create a spot color channel. To do this, you will need to make a selection and save that selection as a channel. Figure 1.

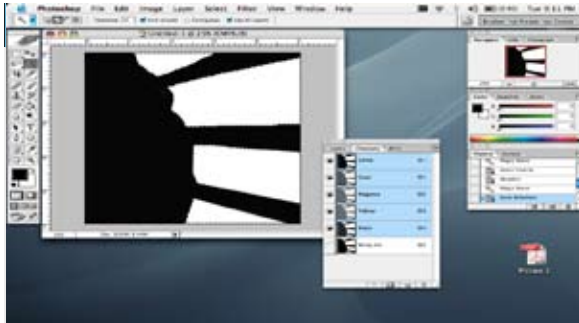


Figure 1. White ink will print in the white areas of the "White_Ink" Channel.

Step by Step:

1. Convert the file to CMYK. If using Photoshop CS, RGB can be used as long as you are using a spot channel.
2. Make a selection in the document using normal selection tools (Wand, Lasso, Quick Mask, etc) of what you want to be white or have a white background.
3. Save the selection by going to Select>Save Selection. See Figure 2.



Figure 2. The Save selection Dialog Box with White Ink spelled out exactly as needed.

4. Open the Channel Palette. Window>Channels.

5. Double-click on the name of the new White Ink channel to open the channel options dialog box. See Figure 3.



Figure 3. The Channel Options Dialog Box.

6. Change the channel to a spot color.

7. Save the document as a TIFF including channels. Note that ColorBurst currently supports only CMYK TIFF files with white ink channels. See Figure 4.

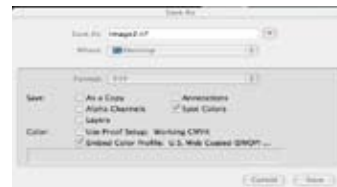


Figure 4. The save Dialog Box with Spot Colors clicked on.



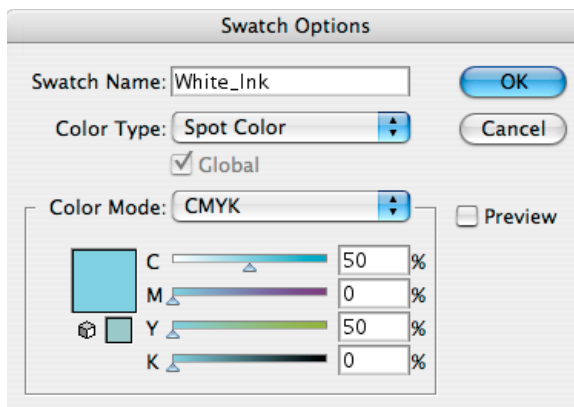
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Prepress Procedure for Creating White Ink in Illustrator

To use white ink in Adobe Illustrator, you will need to define your white ink areas as a spot color and use the name "White_Ink." The naming convention, including upper and lower case usage, is important if it is to be successful. This name for a spot white will be intercepted in the RIP.

Step by Step:

1. Open the swatches palette. (Window>Swatches). See Figure 1.



2. Set the Color Type to Spot Color and the Mode to CMYK. Name the new swatch "White_Ink."
3. Set the color of the swatch to a color not used in the file for easy identification. In this example 50% C & 50% Y. This will print only as white at the print stage.
4. In the file, select the areas and elements to be printed as white. With the white areas still selected, copy the data without moving it. In the Move menu, select Object>Transform>Move or Control+Shift+M. Set both the horizontal and vertical positions to 0, then press the Copy button. By way of explanation, you need to copy the areas to be white rather than simply changing them to spot white because this will allow the spot white layer to print first rather than followed by the CMYK layer. This acts as a mask or knock-out layer.
5. With the Copy still selected, change your fill to the spot white color you created at the start.

6. Continue selecting and copying elements that will be white and changing their color to spot white. It may help to use layers to organize your work. Anything that is spot white will print white first and will be covered by what ever pigment is over the top of it, so double check that you are "knocking out" where you need white to show through. All White_Ink data must be on the top layer regardless of whether it is to be used as pre or post in the print.

7. Save the file as an EPS file.



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