PRINTING WITH SPECIALTY INKS ON NEXFINITY

Printing with gold, dimensional raised clear, opaque white, metallic clear, and clear ink

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A FEW WORDS ON PRINTING

What are specialty inks?

Specialty inks offer exciting capabilities that allows your design to stand out. With specialty inks, a range of surface finishes can be achieved using inline print enhancements. Create eye-catching, impactful prints with the convenience of digital printing.

We are proud to offer the following specialty inks:

KODAK GOLD DRY INK
a luxurious, metallic gold ink that sparkles and commands attention.

KODAK DIMENSIONAL CLEAR DRY INK
a clear, 3-dimensional ink that adds a tactile experience on paper.

KODAK OPAQUE WHITE DRY INK
an incredibly dense opaque white ink that boosts your designs on coloured substrates.

KODAK METALLIC CLEAR DRY INK
a pearlized, transparent ink that simulates a wide range of metallic effects including silver.

KODAK CLEAR DRY INK
a clear ink that can create spot varnish effects or can also add flood protection to your project.

KODAK LIGHT BLACK HD DRY INK
produces ultra-high-quality prints, particularly in areas of photography, neutral tones and in large flat fields.

COLOUR GAMUT
achieve a larger colour gamut and accurately match 97% of PANTONE™ spot colours by using Red, Green or Blue Dry Ink in the Fifth Imaging Unit.

Apart from specialty inks, our NEXFINITY press is also capable of creating either regular or matte finishing. No file set up is required, just ask your representative about the matte fuser option.

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How do specialty inks work with digital presses?

Kodak NEXFINITY Presses prints four process colours: cyan, magenta, yellow, and black (**CMYK**). In addition, a fifth imaging unit can print a variety of other NEXFINITY specialty inks (see **Figure 1**). This gives you the ability to add unique watermarks and protective coatings, match special colours, or add dimensional embellishments.

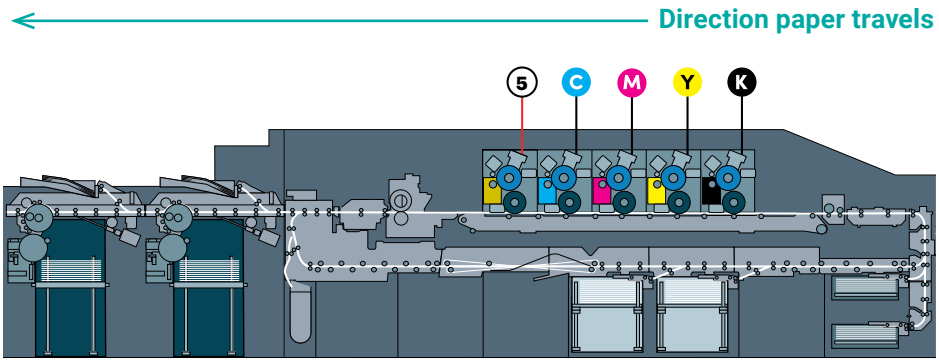


Figure 1. Illustration of the Kodak NEXFINITY Digital Press (courtesy of Kodak)

What is “knockout” vs. “overprint”?

By default, artwork will appear opaque because the top colour “knocks” out or cuts out the layer of colour below it, if you have not changed the transparency of your artwork. This is described as “knockout” (see **Figure 2**).

To prevent knockout, you can change the transparency or overprint settings so the top colour prints over the colour underneath it. The resulting artwork will appear “blended”. This is described as “overprint” (see **Figure 2**).

Setting the transparency mode to “**Multiply**” tells the Digital Press to print the specialty inks on top of the colour image below, rather than hide it. You may view the separations preview panel in **Adobe InDesign** (see **Figure 3**).

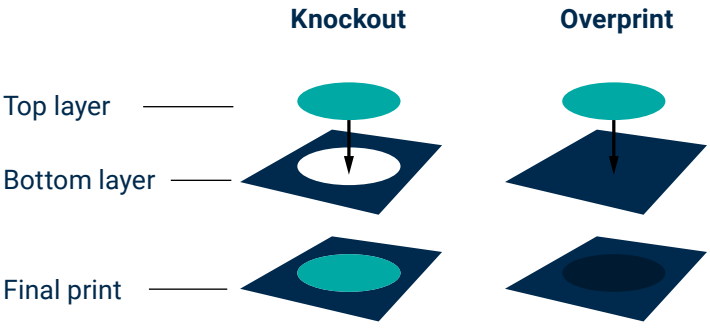


Figure 2. A visual representation of knockout vs. overprint

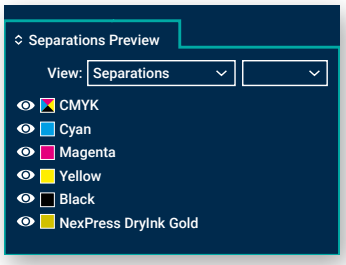


Figure 3. Window > Output > Separations Preview

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NEXPRESS DRYINK GOLD

Working in vector

Create a new colour swatch

1. Open your file in **Adobe Illustrator** or **Adobe InDesign**
2. Go to **Window > Swatches > New Color Swatch**
3. Set **Swatch Name** = **"NexPress DryInk gold"**; make sure to use this exact name, including capital letters and spaces (see **Figure 1**)
4. Set **Color Type** = **Spot**
5. Set **Color Mode** = **CMYK**
6. Set **CMYK** = **0, 0, 100, 25**

Edit opacity settings

7. Select the objects you want to fill with the specialty ink
8. Fill objects with **"NexPress DryInk gold"** swatch
9. In **Adobe Illustrator**, go to **Windows > Transparency** OR In **Adobe InDesign**, go to **Windows > Effects**
10. Set **Blending Mode** = 100% **Multiply** (see **Figure 2**)
11. Save and export your artwork as a PDF file

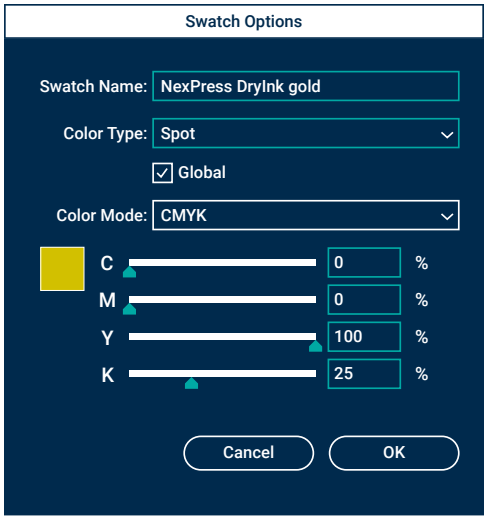


Figure 1. Create a new colour swatch

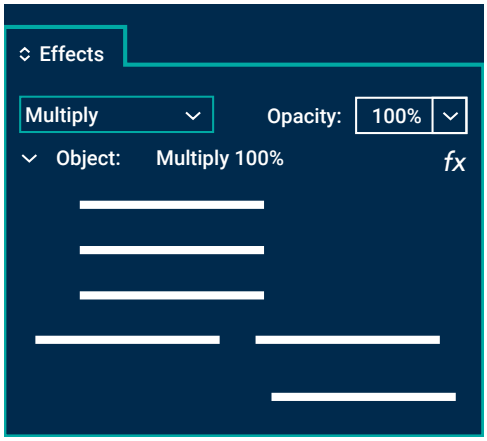


Figure 2. Set opacity to **"Multiply"**



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Working in raster

Convert images to greyscale

1. Open your image in **Adobe Photoshop**
2. Convert image to greyscale: **Image > Mode > Grayscale**
3. Increase image contrast: **Layer > New Adjustment Layer > Brightness/Contrast** (see **Figure 3**)
4. Invert the image to ensure that the heaviest application of gold ink occurs in the lightest tonal areas: **Image > Adjustments > Invert**

Convert images to Monotone

5. Convert to duotone: **Image > Mode > Duotone**
6. Set **Type**: **Monotone** (see **Figure 4**)
7. Set **Ink 1 CMYK** = 0, 0, 100, 25
8. Set **Ink 1 Name** = "NexPress DryInk gold"; make sure to use this exact name, including capital letters and spaces
9. Save your file as "FileName–Gold.psd"

Edit opacity settings

10. Open **Adobe InDesign**
11. If you wish to print gold exactly on top of the original colour image, then
12. Place your colour image on a new layer
13. Duplicate the layer and position it directly on top of the first one
14. Relink the top layer to FileName–Gold.psd
15. Select the FileName–Gold.psd layer and set **Blending Mode** = 100% **Multiply** (see **Figure 2**)
16. Complete the design
17. Save and export your artwork as a PDF file

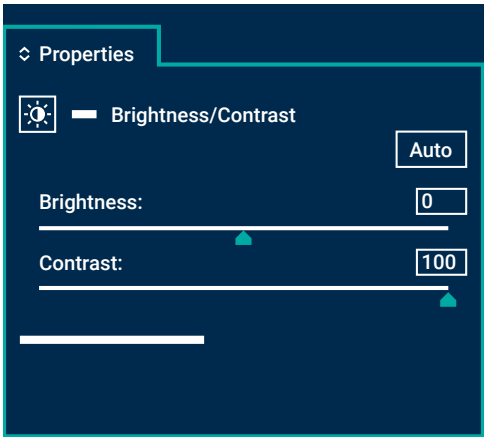


Figure 3. Change image contrast

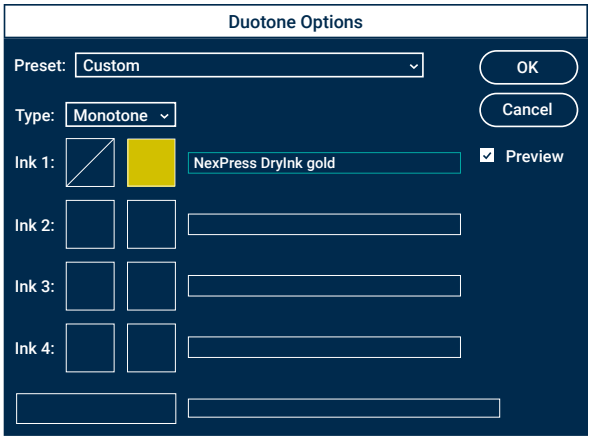


Figure 4. Convert to **Monotone**

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NEXPRESS DRYINK RAISED CLEAR

Working in vector

Create a new colour swatch

1. Open your file in **Adobe Illustrator** or **Adobe InDesign**
2. Go to **Window > Swatches > New Color Swatch**
3. Set **Swatch Name** = **"NexPress DryInk raised clear"**; make sure to use this exact name, including capital letters and spaces (see **Figure 1**)
4. Set **Color Type** = **Spot**
5. Set **Color Mode** = **CMYK**
6. Set **CMYK** = **0, 75, 100, 0**

Edit opacity settings

7. Select the objects you want to fill with the specialty ink
8. Fill objects with **"NexPress DryInk raised clear"** swatch
9. In **Adobe Illustrator**, go to **Windows > Transparency** OR In **Adobe InDesign**, go to **Windows > Effects**
10. Set **Blending Mode** = 100% **Multiply** (see **Figure 2**)
11. Save and export your artwork as a PDF file

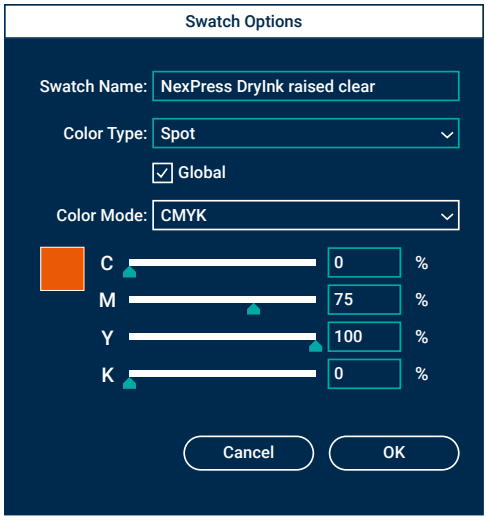


Figure 1. Create a new colour swatch

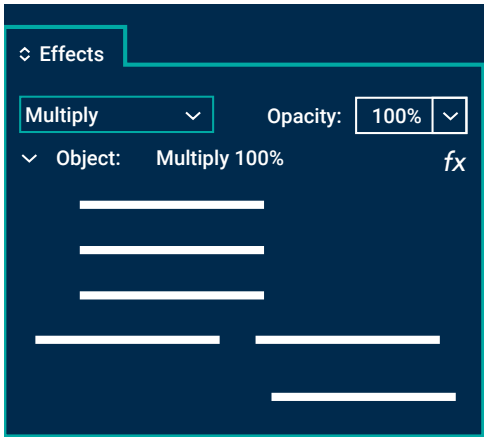


Figure 2. Set opacity to **"Multiply"**



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Working in raster

Convert images to greyscale

1. Open your image in **Adobe Photoshop**
2. Convert image to greyscale: **Image > Mode > Grayscale**
3. Increase image contrast: **Layer > New Adjustment Layer > Brightness/Contrast** (see **Figure 3**)

Convert images to Monotone

4. Convert to duotone: **Image > Mode > Duotone**
5. Set **Type**: **Monotone** (see **Figure 4**)
6. Set **Ink 1 CMYK** = 0, 75, 100, 0
7. Set **Ink 1 Name** = "NexPress DryInk raised clearr"; make sure to use this exact name, including capital letters and spaces
8. Save your file as "FileName–RaisedClear.psd"

Edit opacity settings

9. Open **Adobe InDesign**
10. If you wish to print raised clear ink exactly on top of the original colour image, then
11. Place your colour image on a new layer
12. Duplicate the layer and position it directly on top of the first one
13. Relink the top layer to FileName–RaisedClear.psd
14. Select the FileName–RaisedClear.psd layer and set **Blending Mode** = 100% **Multiply** (see **Figure 2**)
15. Complete the design
16. Save and export your artwork as a PDF file

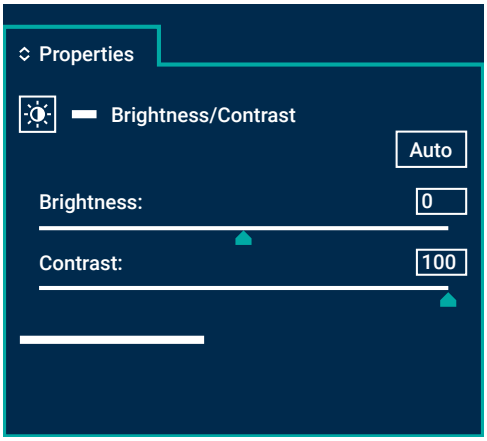


Figure 3. Change image contrast

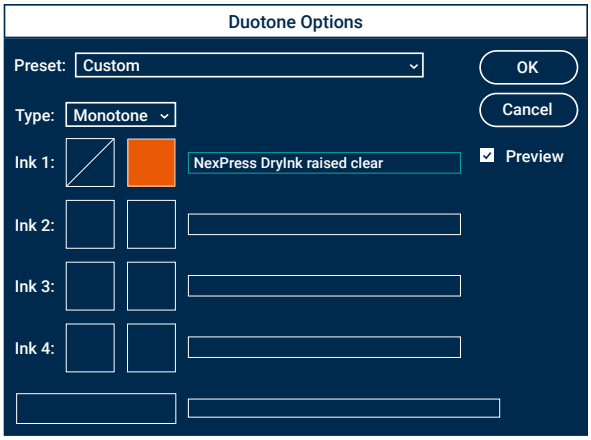


Figure 4. Convert to **Monotone**

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NEXPRESS DRYINK OPAQUE WHITE

Working in vector

Create a new colour swatch

1. Open your file in **Adobe Illustrator** or **Adobe InDesign**
2. Go to **Window > Swatches > New Color Swatch**
3. Set **Swatch Name** = **"NexPress DryInk opaque white"**; make sure to use this exact name, including capital letters and spaces (see **Figure 1**)
4. Set **Color Type** = **Spot**
5. Set **Color Mode** = **CMYK**
6. Set **CMYK** = **50, 0, 0, 50**

Edit opacity settings

7. Select the objects you want to fill with the specialty ink
8. Fill objects with **"NexPress DryInk opaque white"** swatch
9. In **Adobe Illustrator**, go to **Windows > Transparency** OR In **Adobe InDesign**, go to **Windows > Effects**
10. Set **Blending Mode** = 100% **Multiply** (see **Figure 2**)
11. Save and export your artwork as a PDF file

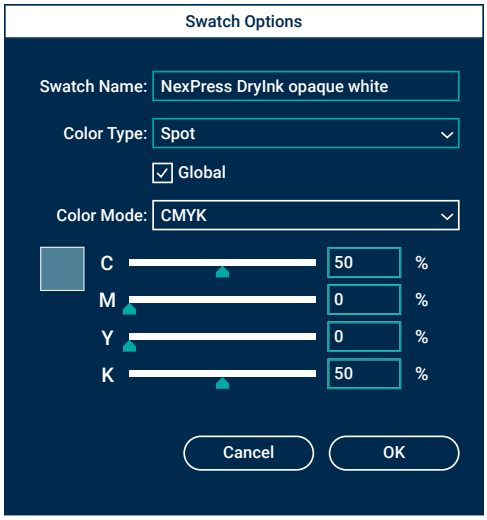


Figure 1. Create a new colour swatch

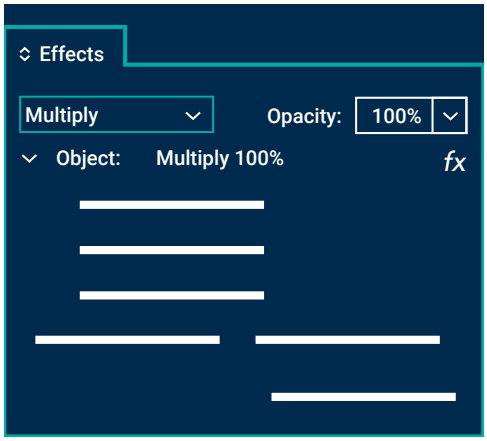
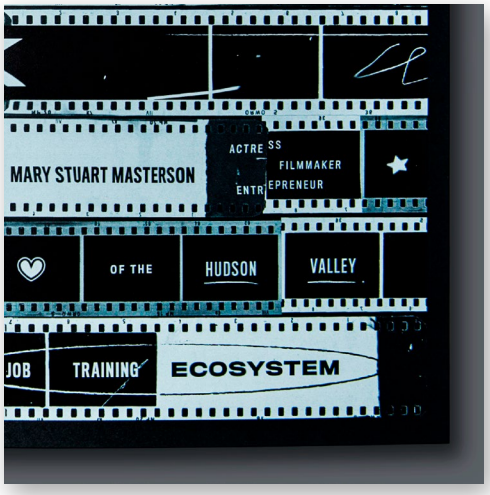


Figure 2. Set opacity to **"Multiply"**



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Working in raster

Convert images to greyscale

1. Open your image in **Adobe Photoshop**
2. Convert image to greyscale: **Image > Mode > Grayscale**
3. Increase image contrast: **Layer > New Adjustment Layer > Brightness/Contrast** (see **Figure 3**)

Convert images to Monotone

4. Convert to duotone: **Image > Mode > Duotone**
5. Set **Type**: **Monotone** (see **Figure 4**)
6. Set **Ink 1 CMYK** = 50, 0, 0, 50
7. Set **Ink 1 Name** = "NexPress DryInk opaque white"; make sure to use this exact name, including capital letters and spaces
8. Save your file as "FileName–OpaqueWhite.psd"

Edit opacity settings

9. Open **Adobe InDesign**
10. Place FileName–OpaqueWhite.psd on a new layer
11. With the FileName–OpaqueWhite.psd layer selected, set **Blending Mode** = 100% **Multiply** (see **Figure 2**)
12. Complete the design
13. Save and export your artwork as a PDF file

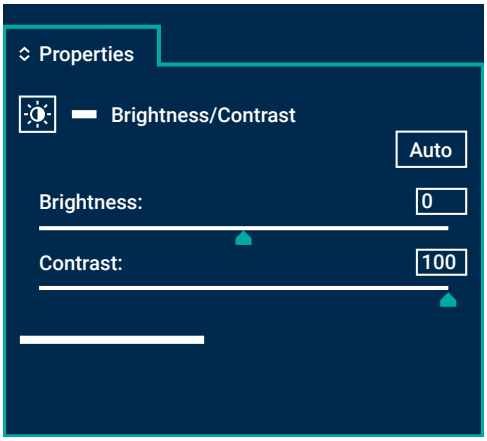


Figure 3. Change image contrast

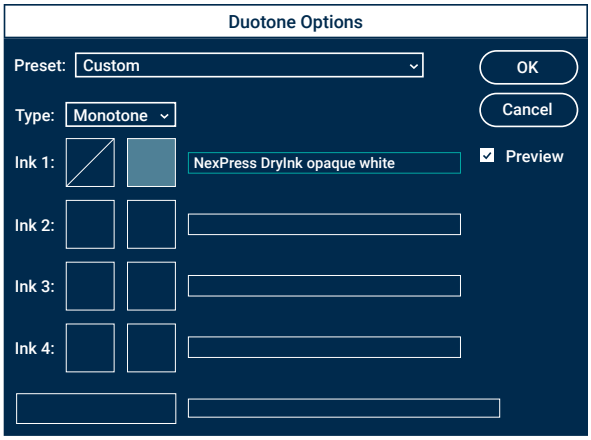


Figure 4. Convert to **Monotone**

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NEXPRESS DRYINK METALLIC CLEAR

Working in vector

Create a new colour swatch

1. Open your file in **Adobe Illustrator** or **Adobe InDesign**
2. Go to **Window > Swatches > New Color Swatch**
3. Set **Swatch Name** = **"NexPress DryInk metallic clear"**; make sure to use this exact name, including capital letters and spaces (see **Figure 1**)
4. Set **Color Type** = **Spot**
5. Set **Color Mode** = **CMYK**
6. Set **CMYK** = **50, 0, 0, 10**

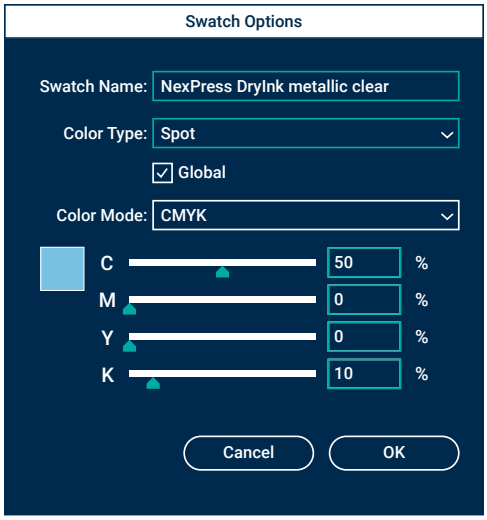


Figure 1. Create a new colour swatch

Edit opacity settings

7. Select the objects you want to fill with the specialty ink
8. Fill objects with **"NexPress DryInk metallic clear"** swatch
9. In **Adobe Illustrator**, go to **Windows > Transparency** OR In **Adobe InDesign**, go to **Windows > Effects**
10. Set **Blending Mode** = 100% **Multiply** (see **Figure 2**)
11. Save and export your artwork as a PDF file

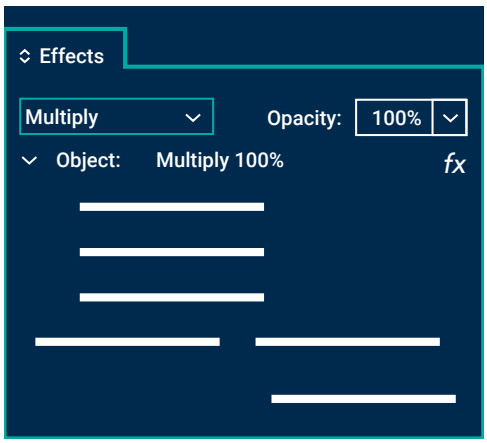
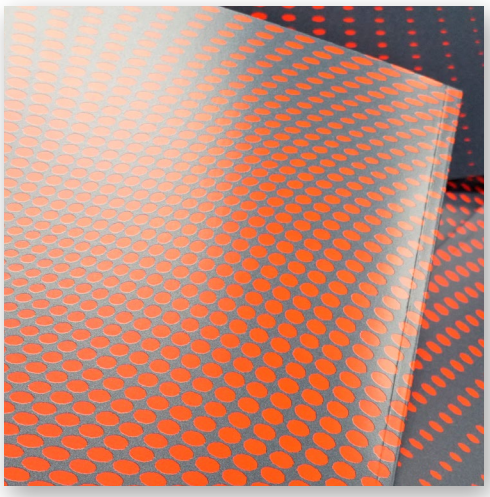


Figure 2. Set opacity to **"Multiply"**



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Working in raster

Convert images to greyscale

1. Open your image in **Adobe Photoshop**
2. Convert image to greyscale: **Image > Mode > Grayscale**
3. Increase image contrast: **Layer > New Adjustment Layer > Brightness/Contrast** (see **Figure 3**)

Convert images to Monotone

4. Convert to duotone: **Image > Mode > Duotone**
5. Set **Type**: **Monotone** (see **Figure 4**)
6. Set **Ink 1 CMYK** = 50, 0, 0, 10
7. Set **Ink 1 Name** = "NexPress DryInk metallic clear"; make sure to use this exact name, including capital letters and spaces
8. Save your file as "FileName–MetallicClear.psd"

Edit opacity settings

9. Open **Adobe InDesign**
10. If you wish to print Metallic Clear Ink exactly on top of the original colour image, then
11. Place your colour image on a new layer
12. Duplicate the layer and position it directly on top of the first one
13. Relink the top layer to FileName–MetallicClear.psd
14. Select the FileName–MetallicClear.psd layer and set **Blending Mode** = 100% **Multiply** (see **Figure 2**)
15. Complete the design
16. Save and export your artwork as a PDF file

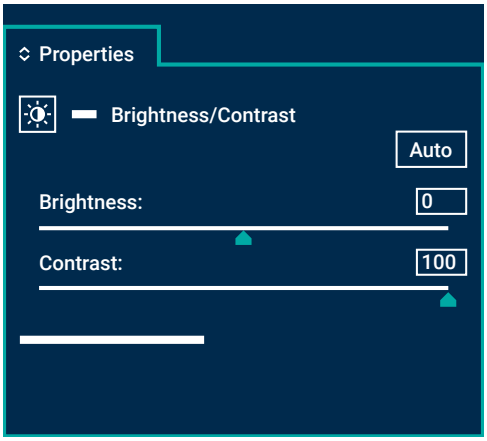


Figure 3. Change image contrast

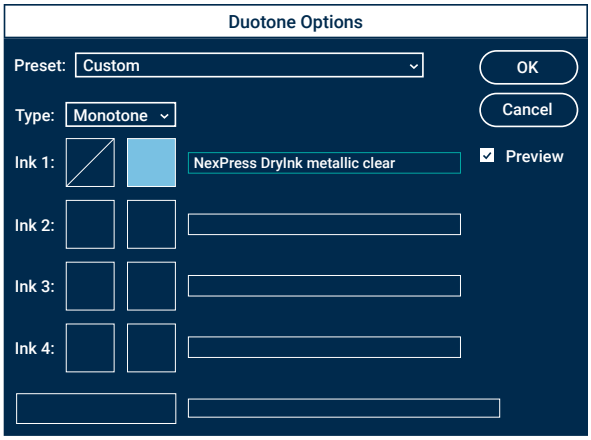


Figure 4. Convert to **Monotone**

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NEXPRESS DRYINK CLEAR

Working in vector

Create a new colour swatch

1. Open your file in **Adobe Illustrator** or **Adobe InDesign**
2. Go to **Window > Swatches > New Color Swatch**
3. Set **Swatch Name** = **“NexPress DryInk clear”**; make sure to use this exact name, including capital letters and spaces (see **Figure 1**)
4. Set **Color Type** = **Spot**
5. Set **Color Mode** = **CMYK**
6. Set **CMYK** = **75, 0, 100, 0**

Edit opacity settings

7. Select the objects you want to fill with the specialty ink
8. Fill objects with **“NexPress DryInk clear”** swatch
9. In **Adobe Illustrator**, go to **Windows > Transparency** OR In **Adobe InDesign**, go to **Windows > Effects**
10. Set **Blending Mode** = 100% **Multiply** (see **Figure 2**)
11. Save and export your artwork as a PDF file

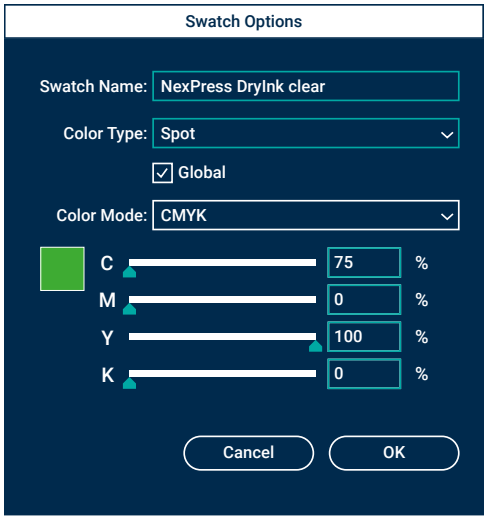


Figure 1. Create a new colour swatch

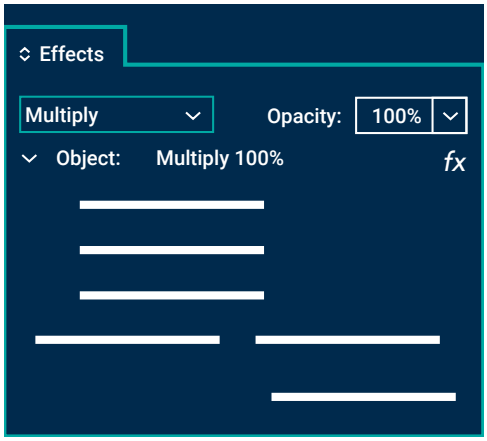


Figure 2. Set opacity to **“Multiply”**



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Working in raster

Convert images to greyscale

1. Open your image in **Adobe Photoshop**
2. Convert image to greyscale: **Image > Mode > Grayscale**
3. Increase image contrast: **Layer > New Adjustment Layer > Brightness/Contrast** (see **Figure 3**)

Convert images to Monotone

4. Convert to duotone: **Image > Mode > Duotone**
5. Set **Type**: **Monotone** (see **Figure 4**)
6. Set **Ink 1 CMYK** = 75, 0, 100, 0
7. Set **Ink 1 Name** = "NexPress DryInk clear"; make sure to use this exact name, including capital letters and spaces
8. Save your file as "FileName–Clear.psd"

Edit opacity settings

9. Open **Adobe InDesign**
10. If you wish to print Clear Ink exactly on top of the original colour image, then
11. Place your colour image on a new layer
12. Duplicate the layer and position it directly on top of the first one
13. Relink the top layer to FileName–Clear.psd
14. Select the FileName–Clear.psd layer and set **Blending Mode** = 100% **Multiply** (see **Figure 2**)
15. Complete the design
16. Save and export your artwork as a PDF file

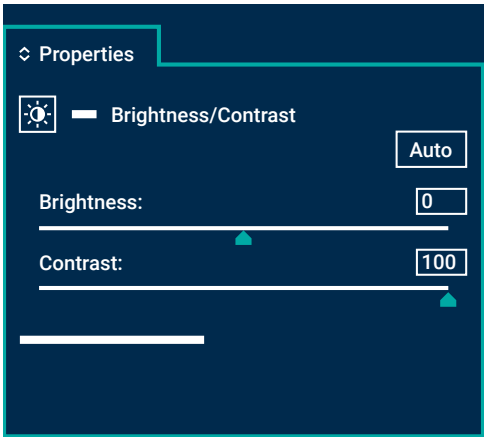


Figure 3. Change image contrast

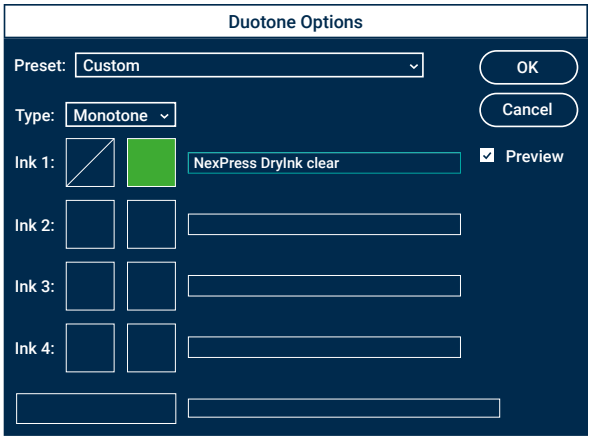


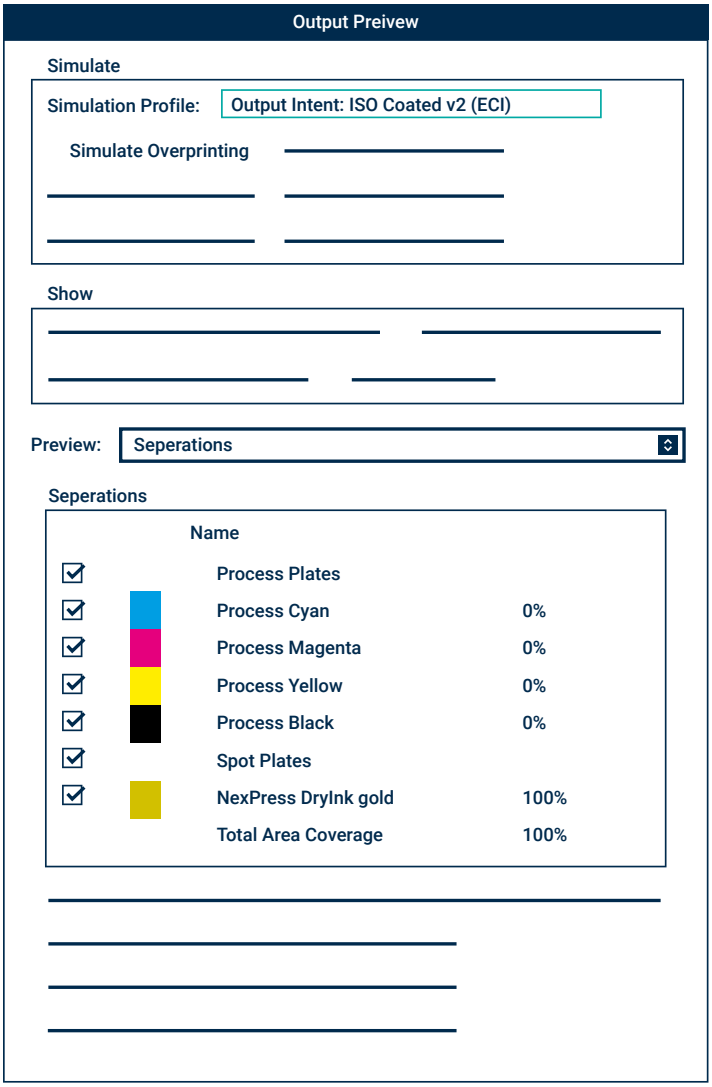
Figure 4. Convert to **Monotone**

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CHECKING YOUR PDF FILE

To check that you have prepared your file successfully, utilize Adobe Acrobat software and colour separations panel.

1. Open the PDF in Adobe Acrobat
2. Go to: **Advanced > Print Production > Output preview**
3. Hover your mouse over the areas where you expect to have NexPress DryInk gold (or any other specialty inks)
4. If you have set up the file correctly, the percentage of "NexPress DryInk gold" (or any other specialty inks) will change. 100% being the highest possible
5. NOTE: gold ink is represented visually by a mustard yellow overlay which will NOT be appear in the final print



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RESOURCES

For detailed information about Kodak's NEXFINITY Digital Press specialty ink printing, visit

https://www.kodak.com/en/print/product/digital/fifth-imaging-units/resources

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FOR MORE INFORMATION, CONTACT YOUR MITCHELL EXPERT.

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