DIFFERENT APPLICATIONS OF WHITE INK

USING WHITE AS A SEPARATE „COLOR"

White ink can be used like any other color in digital printing. It can simply be used to print "white", e.g. on a black cardboard or on a colored self-adhesive film.
Alternatively, white ink can also serve as a flat background for colored elements. In contrast to printing on white paper, where all areas that should appear in white are simply not printed, the procedure for printing on glass or dark base material has to be different.
In order for software and printing machines to recognize this "color" white as a printable color, the color white in print files needs a special designation – it becomes a spot color called "white" or "varnish".

The main application for white printing is for overprinting or underprinting on transparent or dark materials. Conventional ECO-Solvent colors (cyan, magenta, yellow, light cyan, light magenta) have lower opacity. This makes them look very transparent on transparent stickers that are stuck on a pane. To prevent this effect, white is printed precisely under the other colors.
Brilliant colors can only be achieved by back-printing with white ink.

White can be partially or fully printed on the back as back printing. The following examples explain different use cases and the correct structure of the print file.

WHITE AND VARNISH

White denotes an ink that is underneath a colored element when viewed from the visible side or is used separately on its own.

Varnish is originally an English term for varnish that is subsequently applied as a „spot varnish" over an already printed ink. In white printing, Varnish refers to the color white, which is printed on the back of a colored layer of ink - viewed through the printed material. This occurs in cases when prints are printed on the back of Plexiglas or glass discs are applied.
Seen from the visible side, Varnish is „behind" the ink. Varnish is „over" or „on top" of the colored element when viewed from the printed side. The viewer looks through a transparent material and sees an opaque, rich motif. So it depends on the viewing direction of the consideration and the material properties (transparent or non-opaque).

⚠️

White appears behind the ink on the printed side – Varnish is therefore printed on top of the ink on the printed side.

VARNISH AS ORDINARY VARNISH

Varnish can also be used as a spot color for objects to be spot varnished.
You can create the file as described below. Please note: in the digital printing process it is not possible to create a full-surface paint application on larger areas. Please ask your project consultant about this.

DO NOT create larger solid areas or complete drawing areas with Varnish!

⚠️

01-2021

SPOT COLOR „WHITE"

PRINT WHITE INK + COLORS ON TRANSPARENT MATERIAL - WITHOUT UNDERPRINTING

Transparentes Material

Druckfarbe **White**

THE REQUEST
A transparent material such as B. a pane of glass, plexiglass or a transparent self-adhesive film is to be printed on the visible side with multicolored elements as well as elements in white and black.

THE CHALLENGE
Colored elements and even the black text appear slightly translucent when printed on transparent material, i.e. not 100% fully opaque. This effect may well be desirable.

THE CORRECT FILE
All print objects are applied to the material in the same print run (not one after the other).
Separate white text or other white elements are printed in the same pass with the colored elements.
The special color WHITE must be given a special designation so that the printing machines correctly control which color is applied under or behind another printing color.

In this case, white is selected as the spot color *„White"* for white objects.
„Overprint" can but does not have to be selected (in this example it has no effect on the print result).

CHECK

☑ White = created as a spot color named „White".

☑ White objects on their separate layer named "White"

☑ Set the „White" layer as the top layer

01-2021

SPOT COLOR „WHITE"

PRINT WHITE INK + COLOR ON TRANSPARENT MATERIAL - WITH UNDERPRINTING

Transparentes Material

Druckfarbe **White**

THE REQUEST

A transparent material such as B. a pane of glass, plexiglass or a transparent self-adhesive film is to be printed on the visible side with multicolored elements as well as elements in white and black. In this case, the colors should be rich and as opaque as possible and not translucent and slightly translucent.

THE CHALLENGE

Colored elements and colored texts require a white, matching underprint so that their color appears rich and opaque on a transparent material.

THE CORRECT FILE

All print objects are applied to the material in the same print run (not one after the other). Separate white text or other white elements are printed in the same pass with the colored elements. The special color WHITE must be given a special designation so that the printing machines correctly control which color is applied under or behind another printing color.

In this case, white is selected as the spot color *„White"* for white objects. All white elements must be given the *„overprint"* attribute!

CHECK

☑ White = created as a spot color named „White".

☑ White objects on their separate layer named "White"

☑ Set the „White" layer as the top layer

☑ Set white objects to overprint

SPOT COLOR „WHITE"

PRINT WHITE + COLOR ON DARK OR COLORED MATERIAL

Dunkles oder farbiges Material

Druckfarbe **White**

Hier
Information
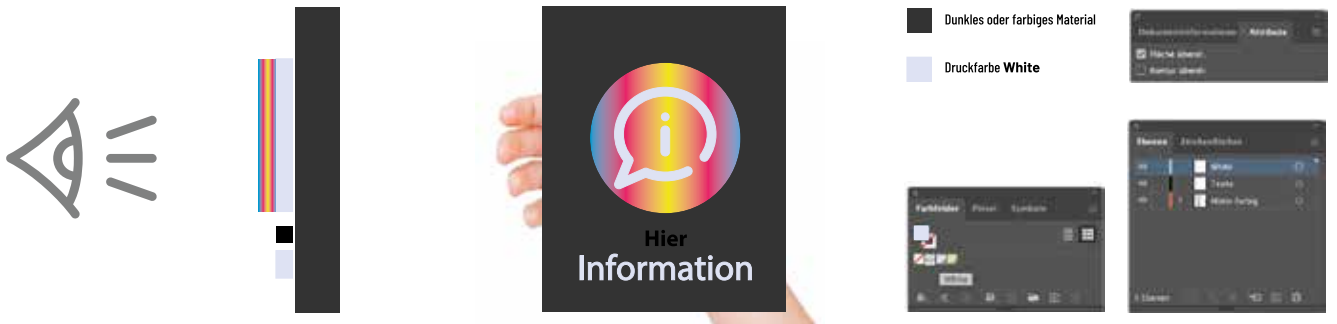
THE REQUEST
A dark or colored base material is to be printed with a (lighter) color, e.g. light yellow text is to be printed on a black plate or pale purple text on a green foil.

THE CHALLENGE
Due to the translucent properties of the inks, mixed colors would appear in this case, or the print would not be recognizable. Therefore, colored elements and colored texts must be provided with a white, matching underprint so that their colors appear rich and opaque on dark/colored material.

THE CORRECT FILE
All print objects are applied to the material in the same print run (not one after the other). Separate white text or other white elements are printed in the same pass with the colored elements. The special color WHITE must be given a special designation so that the printing machines correctly control which color is applied under or behind another printing color.

In this case, white is selected as the spot color *„White"* for white objects. All white elements must be given the *„overprint"* attribute!

CHECK

☑ White = created as a spot color named „White".

☑ White objects on their separate layer named "White"

☑ Set the „White" layer as the top layer

☑ Set white objects to overprint

USING OF SPOT COLOR „WHITE" AS AN OPTION TO PRINT WHITE INK

WEISS + BUNTFARBE RÜCKSEITIG AUF TRANSPARENTES MATERIAL DRUCKEN

Transparentes Material

Druckfarbe **Varnish**

THE REQUEST

A transparent material such as a pane of glass, plexiglass or a transparent self-adhesive film should be printed on the back (e.g. to protect the print) with multicolored elements as well as elements in white and black, which appear strong and opaque when viewed through the pane or film must.

THE CHALLENGE

Colored elements and even the black text appear slightly translucent when printed on transparent material, i.e. not 100% full and opaque. Therefore, these objects need a white, matching underprint if they are to appear rich and opaque. Separate white text or other white elements are printed in the same pass. White is selected as the spot color "Varnish" for these objects – regardless of whether they function as white, stand-alone objects or as white background printing.

THE CORRECT FILE

All print objects are applied to the material in the same print run (not one after the other). Separate white text or other white elements are printed in the same pass with the colored elements. The special color WHITE must be given a special designation so that the printing machines correctly control which color is applied under or behind another printing color.

In this case, white is selected as the spot color *"Varnish"* for white objects. All white elements must be given the *„overprint"* attribute!

CHECK

☑ White = created as a spot color named „Varnish".

☑ White objects on their separate layer named "Varnish"

☑ Set the „White" layer as the top layer

☑ Set white objects to overprint