

FILE REQUIREMENTS *Effects and Shapes*



ORIGOS

! Eye-catcher

The final print product is elevated to a whole new level with eye-catching special effects and details. To provide a print-ready PDF document for such a product, several technical guidelines are to be followed, along with basic guidelines.

Color separation in a print-ready PDF determines how CMYK colors are produced in a print product. Special effects, additional colors, and shape structures need to be also represented correctly in the print PDF for production processes to understand how the product is to be manufactured.

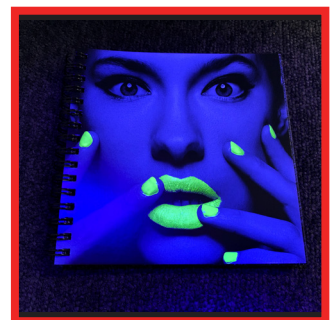
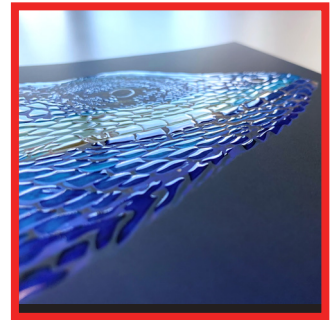
In this guide we walk you through how to prepare print PDF for our sheet fed* production with following special effects:

- **Spot UV coating**
- **Foiling**
- **Shapes**
 - Thru-cut (Free final shape or holes in print product)
 - Kiss cut (Stickers)
 - Crease (Packages, etc.)
 - Perforate (Tear off edge, etc.)
- **Additional colors**
 - White
 - Gold
 - UV-Yellow
 - Clear

Examples in this guide use Adobe InDesign, but the same principles apply to Adobe Illustrator as well.

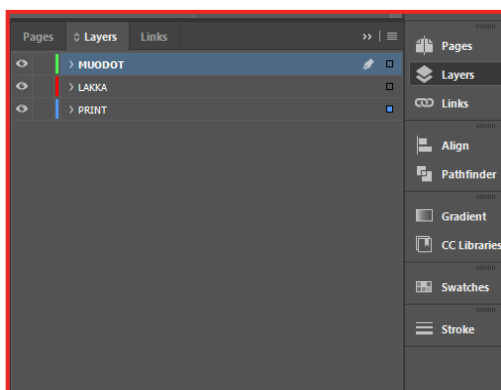
In case the topic feels a bit overwhelming, we at Origos are happy to assist you with file preparation as an additional service..

Feel free to ask further details and tips from our [sales](#).



* This guide doesn't apply to large format production. Maximum product format is 650 x 300 mm (600 x 300 mm for products with free shape).

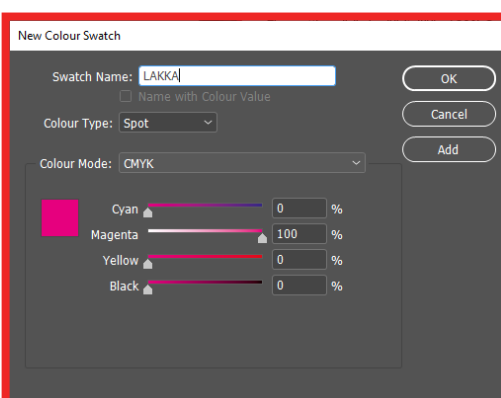
General guidelines



LAYERS

To make your work more fluent, create separate layers for effects and shapes to keep additional elements apart from CMYK content.

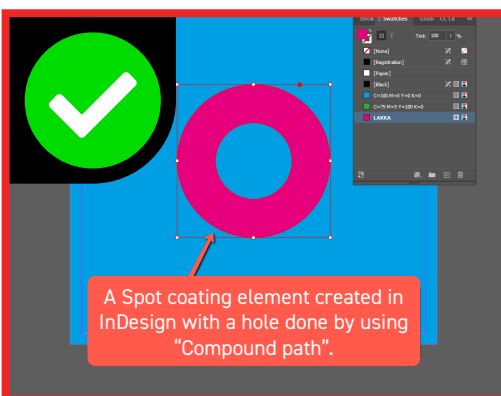
Layers are also to be included in the print PDF for easy observation of the file structure. (See section “Print-ready PDF”)



SPOT COLORS

Special effects and shapes are described with custom spot colors. Spot colors are to be created and specified with correct settings and names.

The names of the operation/effect-specific spot colors will be covered in corresponding sections of this guide.



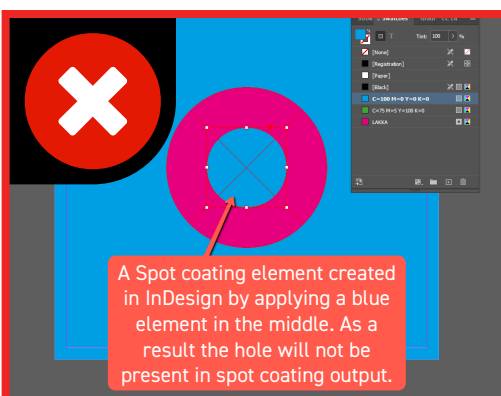
VECTOR OBJECTS

All elements defining special effects and shapes are to be created as vector objects instead of picture objects*.

With objects defining special effects, you can use both fill and stroke with corresponding spot colour.

If a filled object is to be only partially filled appropriate path tools should be used instead of covering the object with another object.

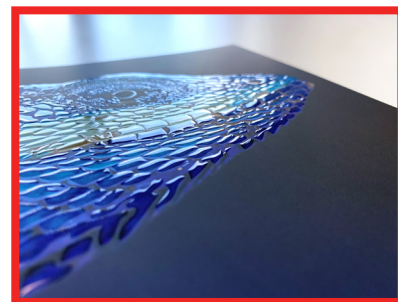
Cut, kiss cut, crease and perforate lines are defined as paths with 0.5pt stroke. Shape structures may not consist any fills.



* Additional colors can be defined in pictures as five-colour separation with correctly named fifth channel.

Spot UV coating

The contrast between the matte background surface and shiny spot coating highlights the details of the layout. Elevated spot elements bring a new dimension to the print product, perceptible also through fingertips, alongside the printed message itself.



The spot layer is at least 20-30 micron (0,2-0,3 mm) in thickness. The elevated structure of the effect can be further emphasized by applying double layer (20+40 micr). The thickness of the layer is not specified in print PDF but can be discussed when placing an order.

As a guideline for thickness of the coating the following can be considered:

- Widespread areas such as picture frames, thick and large texts and logos.
 - Thin layer polishes the area highlighting it nicely.
- Thin details and graphical elements.
 - Double layer (20 + 40 mikronia) can be used to magnify the physical structure of the effect.

TEXT AND DETAILED OBJECTS

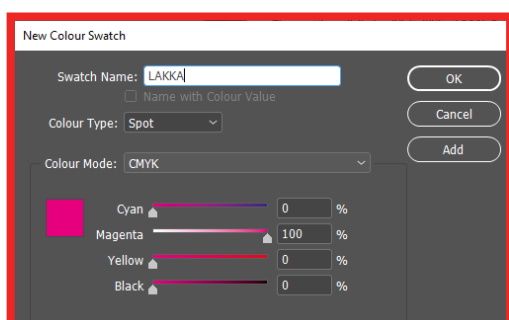
The coating layer spreads slightly on the surface of the product, preventing informative and detailed objects from staying sharp.

When highlighting text, a minimum font size should be considered:

Highlighting printed text	14pt
Applying text with spot coating alone	20pt

SIZE OF THE AREA TO BE COATED

Spot UV coating is designed to highlight small details in the layout. It is not suitable technique for covering full pages or large areas. Full page can be laminated with gloss film.



SPOT COLOUR FOR SPOT UV COATING

Colour swatch name:	LAKKA
Colour type:	Spot
Alternative colour value (CMYK):	0-100-0-0

Foil

To add some “Bling Bling” to your print product, foiling may be the special effect of choice.

Colour options: gold, silver, blue, red, violet and hologram.

IMPLEMENTATION IN PRACTISE

Foiling may be applied in two ways.

1. CMYK print → lamination → foiling

- CMYK content is printed on the substrate.
- Silk-lamination is applied over the printed surface.
- Foiling is applied over the laminated surface.

2. Foiling → CMYK print

- Foiling is applied over the plain substrate. (only certain substrates can be used).
- CMYK content is printed “around” the foil elements (no lamination).
- Holes in CMYK content for foil elements are applied automatically to print PDF prior to printing.

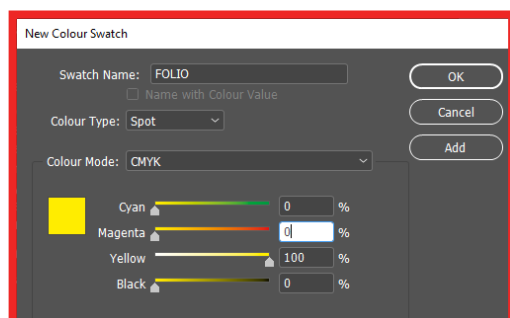
FOIL ELEMENT STRUCTURE AND PLACEMENT

The minimum recommended font size is 10pt. In font styles, we do not recommend using light fonts.

The alignment of foil elements in relation to the underlying or surrounding base print can vary. In design, it is advisable to take this into account by avoiding a precise relationship between the base print and foil elements.

Complex and detailed foiling, such as small text, works better with the implementation described in point 1.

When foiling, only one foil type is used at a time, defined when placing an order.



SPOT COLOUR FOR FOLING

Colour swatch name:

FOLIO

Colour type:

Spot

Alternative colour value (CMYK):

0-100-0-0

Shapes

A typical printed product is usually rectangular in shape. Through die-cutting, the implementation is done more freely by shaping the printed product in a creative and tactile way.

The shape can refer to contours of the product, be realized as an additional effect or functional detail created through openings or cuts.

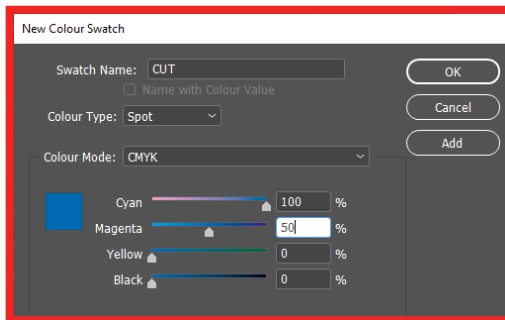
Stickers that detach from sheets are also implemented by die-cutting.

Package structures are formed with die-cutting, including creases and cuts. You can find ready-made [templates](#) for packages on our website.



DEFINITION OF SHAPES IN PRINT PDF

Shapes are defined as 0.5pt vector lines, with properly named Spot colors. Lines are placed on a separate layer in the print PDF.



SPOT COLORS FOR DIFFERENT FUNCTIONS

THROUGH CUTTING

Color Name: CUT
Color Type: Spot
Alternative Color Value (CMYK): 100-50-0-0

KISS CUT (Stickers)

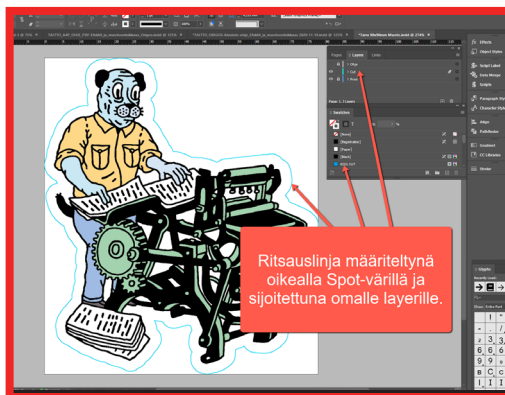
Color Name: KISS CUT
Color Type: Spot
Alternative Color Value (CMYK): 100-0-0-0

CREASE

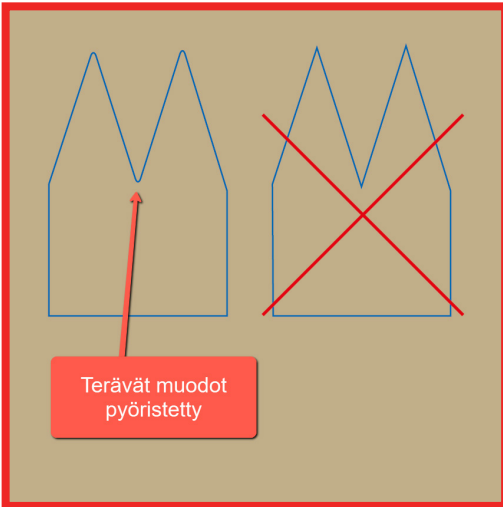
Color Name: CREASE
Color Type: Spot
Alternative Color Value (CMYK): 100-0-100-0

PERFORATION

(Dotted line cutting. Unified line in the artwork)
Color Name: PERFORATE
Color Type: Spot
Alternative Color Value (CMYK): 0-100-100-0

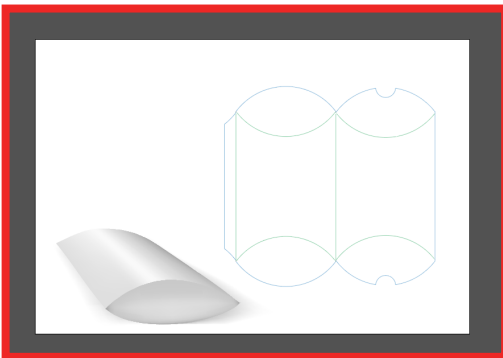


Shapes

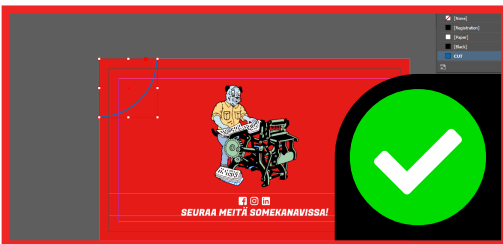


STRUCTURE OF SHAPE LINES

Clear basic shapes (circles, ovals, etc.) do not require special attention. More detailed, sharp, and intricate turns in the cutting line may cause tearing depending on the material. To ensure the best end result, the tips of the shapes should be rounded with a minimum radius of 0.5mm.

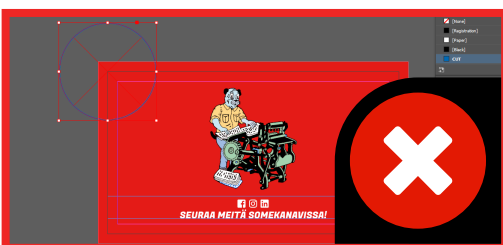


The creases guiding the folds of the packages should generally be straight, but in certain structures, gentle curves can be also used.



The elements of the die-cut shape may extend up to the edges of the bleed area at most.

When the die-cut shape defines the entire outer edges of the product, the document's initial page size (trim box) should be limited to the extremes of the die-cut shape.



In the example, instead of a full die-cut for the entire product, only a corner is cut away, and the rest of the cut is done with a regular cutter. The cut is defined by an arc that is limited to the edges of the bleed area. The cut element cannot be defined with a circular element, leaving part of it outside the bleed area.

Shapes



BLEED AREA

In die-cut products, the bleed areas should also be considered either by leaving sufficient margin or by extending elements that go up to the edge beyond the cutting line.

More complex structures, such as packages, can be challenging to visualize concerning bleed areas and often require compromises, as well as thoughtful consideration of the entire layout based on the structure's requirements.

LABEL SHEETS

The print PDF for labels is created as an individual piece, with the page size according to the shape of the label.

Printed labels are delivered either on A3+, A4-, A5-sized sheets, or individually, cut apart in addition to the kiss-cutting process.

The print PDF for labels can also be created as a so-called label sheet. In this case, within a specific page size, multiple kiss-cut labels are defined. The product is delivered as sheets according to the page size.

Additional colors

Additional colors bring new dimensions to the printed product.

The UV-YELLOW additional color stands out brilliantly under UV light.

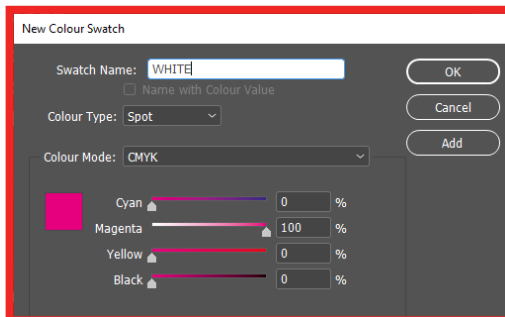
White additional color can be used on translucent black cardboard or as an undercoating for CMYK primary colors on both transparent and translucent materials.



DEFINING ADDITIONAL COLORS IN PRINT PDF

Additional colors are defined with correctly named Spot colors. Specifications for overprinting or knockout require special attention during the print PDF preparation (InDesign and Illustrator "Attributes" window).

In implementation, one additional color can be used at a time.



SPOT COLOR DEFINITIONS FOR ADDITIONAL COLORS

WHITE

Color Name: WHITE
Color Type: Spot
Alternative Color Value (CMYK): 0-100-0-0

GOLD

Color Name: SPECIAL
Color Type: Spot
Alternative Color Value (CMYK): 0-100-0-0

UV-YELLOW (Loistaa UV-valossa)

Color Name: UV-YELLOW
Color Type: Spot
Alternative Color Value (CMYK): 0-0-100-0

CLEAR (Kirkas kohdelakkamainen efekti)

Color Name: CLEAR
Color Type: Spot
Alternative Color Value (CMYK): 0-0-0-50

Additional colors - Examples



USING UV-YELLOW AS AN EFFECT ELEMENT

Part of the elements in the layout are executed using an additional color. These elements are placed on a separate layer above the rest of the layout.

Spot Color Name: **UV-YELLOW**
Overprint: **Off (Knockout)**

WHITE ON TOP OF CMYK TONES

White color serves as a base for the primary colors (CMYK) on transparent label material.

Additional white color is printed on top of the CMYK tones. The label is applied to the window from inside. Note! Mirror all content.

Create an element on its own layer (top layer) that overlays desired areas. Fill the element with the Spot color WHITE.

Spot-Color Name: **WHITE**
Overprint: **Overprint fill/stroke**

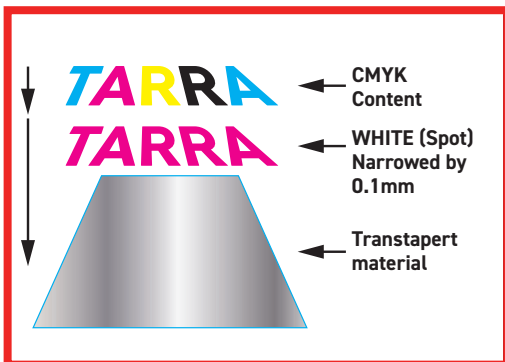
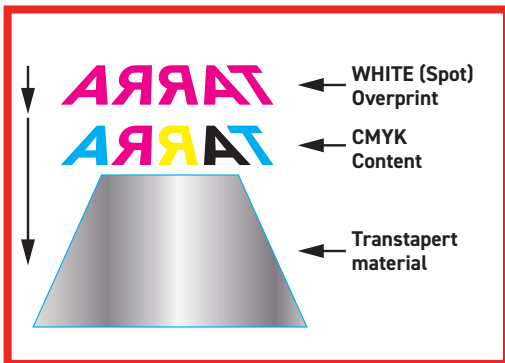
WHITE UNDERNEATH CMYK TONES

As a base for primary colors (CMYK) when printing on transparent or dark material.

White is printed separately before the printing of CMYK tones.

Create an element on its own layer (bottom layer) that goes under the rest of the content, covering the desired areas. Fill the element with the Spot color WHITE.

Spot Color Name: **WHITE**
Overprint: **Off (Knockout)**



Additional colors - Examples

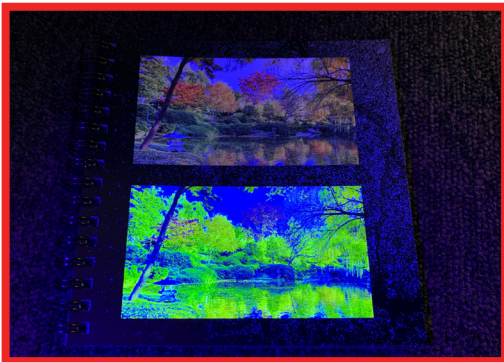


TRANSPARENT CLEAR OVER CMYK TONES

With a clear additional color, content elements can be highlighted similarly to spot varnish.

Create elements on a separate layer (top layer) that overlay the rest of the content, using Spot color CLEAR for both fills and strokes.

Spot Color Name: CLEAR
Overprint: Overprint fill/stroke



UV-YELLOW AS PART OF COLOR SEPARATION IN AN IMAGE

The additional color can also be defined as a separate color channel in image editing software (Adobe Photoshop) and create color separation for the image that utilizes the additional color.

In the example implementation, the upper image is a CMYK image, and in the lower one, yellow process color has been partially replaced with the additional color UV-YELLOW.

The additional color can also be used with RGB images, and the processed images can be brought into the layout program (InDesign or Illustrator) either with RGB+Spot or CMYK+Spot color structure to create the final print PDF.

Spot Color Name: UV-YELLOW

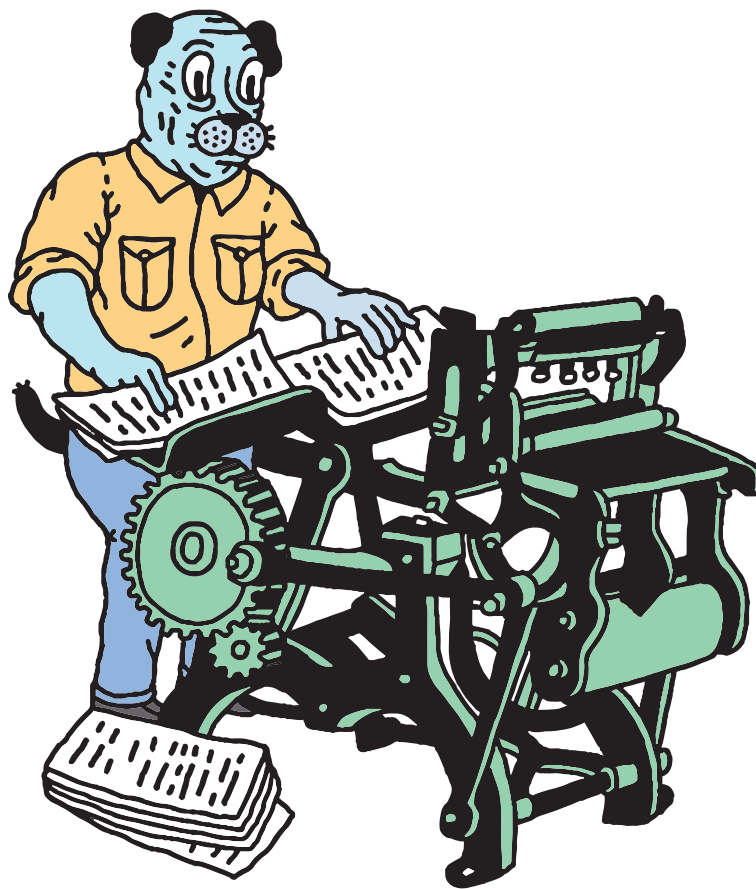
Print ready PDF

A print-ready PDF is typically generated using standard methods (InDesign “Export” and Illustrator “Save As”), ensuring that bleed is included. When dealing with effects and shapes, additionally, “Create Acrobat Layers” should be activated.

You can find pre-made [PDF presets](#) on our website for InDesign and Illustrator, tailored for PDF creation. There's a specific preset for effects and shapes that already has the layer creation activated.

It's important to note that relying solely on the PDF preset doesn't guarantee the quality and print suitability of the print PDF. Proper technical preparation of the material is crucial.

By ensuring that your material is prepared accurately and creating a PDF with the right settings, you'll be able to seamlessly place an order for your print product, saving also on costs.



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