4.0 Version

At **SpotModel** we are always thinking about how to go one step further, offering new possibilities to our dear modelers.

Thinking of you modeler, who just like **SpotModel** wants to reach further, we offer you the **SpotModel Print Lab**, a **new decal digital printing service** that will allow your designs, your liveries and decorations, your customizations and logos to be transformed into actual decals you can use in your models, with the infinity of colors and possibilities that the process color system gives, including white ink and clearcoat printing.

The mechanics are simple:

1.- Make the design you want, following our templates and instructions.

2.- At **SpotModel** we will review your design and, usually 1 or 2 weeks after receiving it, we will let you know whether if it's ready to print or if it's not correct, in which case you must modify it to be valid.

3.- When it is finally validated, you will be given access to it on our website under your user account (only you can see it) and from there you can buy as many prints as you want, from one copy to thousands.

Here's how to prepare your files to upload them to our website:

1.- We only support **Adobe Illustrator** (.AI) files.

2.- Download and use the **provided design template** to make sure that your design is valid and prints correctly. Our file upload system will automatically reject any file not designed using this template.
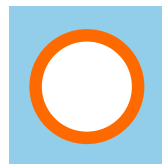
3.- In that template, you will find four different layers: Print Marks, White, Design, and Clearcoat.
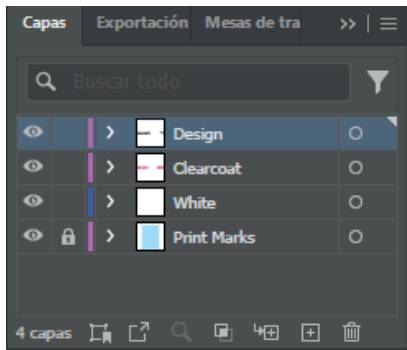
Note that this is also the actual printing order: white is printed first, the design layer is printed over it, and finally, the varnish layer is printed over both of them.

Clearcoat
Design
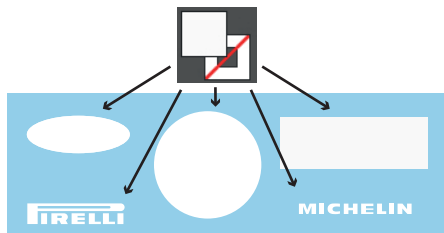White
Print marks
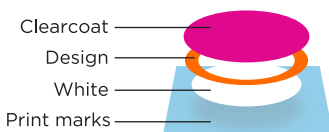
Printed result ▶

4.- The **Print Marks** layer is only used to facilitate the printing process. Just ignore this layer: it will show as locked in the template, so please do not add, modify or delete any element on it. Just make sure your design does not fall outside the blue area.

5.- **All the elements of the design must have white underneath.** Therefore, the White layer must include the silhouettes of all the elements that make up your design, filled with the WHITE colour available in the palette of the template that we provide you (C1 M1 Y1 K1), and without any stroke. Do not include PNGs or JPGs in this layer, they must all be vectorised elements. Do not include clipping masks either. If any element does not have a white background, it will become transparent when placed on the surface of the model. Of course, if your design includes the colour white, keep in mind that white will only be printed if it appears on the White layer.
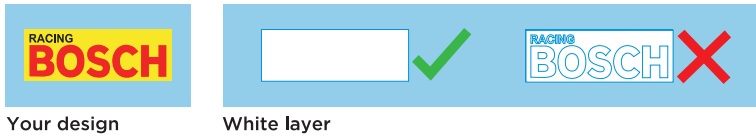

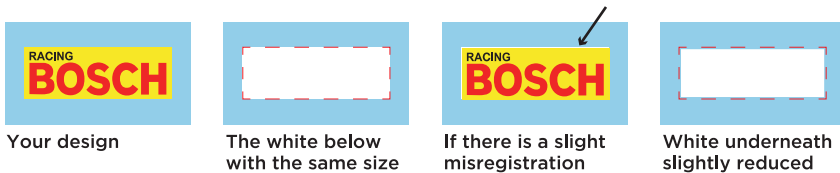Some elements on Design layer · The same elements on White layer.

The white layer can only contain elements with a white fill, without stroke (not just any white, the 'white' from the template's swatches palette, all elements with the same white). If you have any elements with white fill and white stroke, in Adobe Illustrator you must use the "Object > Expand" option, checking both the "Fill" and "Stroke" boxes. Sometimes the "Expand" option may be disabled in the menu. In that case, you should first select the "Object > Expand Appearance" action and then "Object > Expand".

Another important detail: in the white layer the different objects that are part of a design element must be "unified", that is to say, if I have a logo that includes letters and/or drawings inside a rectangle, in the white layer there must only be the blank

rectangle, without the letters and without the drawings. In other words, only the silhouettes of the elements appear in the white layer.

Your design   White layer

For best results, we recommend that the elements of this layer are reduced by 0.05 mm on each side compared to the design layer. This will prevent the white from standing out under the colour if there is a slight misregistration in the print.

Your design   The white below   If there is a slight   White underneath
                     with the same size   misregistration   slightly reduced

IMPORTANT: This step requires advanced design skills. It is not possible to scale down all elements together and in many cases it is not a simple scaling of the each element.

6.- Draw everything you want to print in the **Design** layer, inside the blue box area shown in the template. For the best possible result, keep these parameters in mind:

a) **The texts must ALWAYS be converted to vector curves.** The reason is because if you use a typeface that we do not own at SpotModel, we will not be able to print your design correctly. To do this in Illustrator, select all text in your design, and in the "Type" menu, click on "Create outlines". In Corel, select all text in your design, and in the "Object" menu, click on "Convert to curves". Keep in mind that once you do this you will not be able to modify the text, so we advise you to leave this step for the very end, just before sending us the file ... but do not forget it!

b) The smallest dot size that can be printed with quality is 0.1 mm in diameter, but we recommend 0.2 mm as the smallest.

c) The thinnest line that can be printed with quality is 0.1 mm wide, but we recommend 0.2 mm as the thinnest line.

d) Texts can be printed so small that you will have to read them with a magnifying glass, but we recommend a minimum of 3 points.

e) If you are planning to draw small objects with lots of detail, they will not have enough sharpness. In these cases, we recommend that you simplify the design.

Original   **Simplify**

f) Gradients can be used.

g) Pictures can't be printed. IMPORTANT: make sure to **vectorize** all the TIFFs, JPGs or PNGs that you want to include in the **Design layer** with the 'Image trace' tool of Illustrator (in the drop-down menu you have different finishing quality options). Also remember to add a white background in the **White layer** and the corresponding varnish in the **Clearcoat layer**. Remember, all the elements included in the file, in any of its layers, must be vectorized.

h) Since your design will be printed using CMYK process, you can use as many colors as you want. In the print sample (available for purchase on our website), you can see CMYK simulations of the Pantone color references commonly used in decal printing.

i) Fluorescent colors can not be printed.

j) Metallic colors can not be printed, but if you use Pantone gold and silver inks (Pantone 877 C and Pantone 871 C), the interpretation in CMYK is quite acceptable for small details.

7.- **All the elements of your design must be clearcoated on top**. Therefore, the **Clearcoat** layer must also contain the outlines of every object in your design, but in this layer all must have the same color: the CLEAR color from the template's swatches palette.

Some elements on Design layer   The same elements on Clearcoat layer

IMPORTANT: keep in mind that the clearcoat shape is the one that will stick an individual decal all together, so think carefully about which area you should cover with clearcoat in each case.

Please, study carefully the following examples:

These elements must have a manual designed clearcoat contour

Incorrect clearcoat contour. In this way each letter will be a independent decal

Here the clearcoat contour it's ok

8.- Once printed, your decals will have a peculiarity: they will slightly expand when wet, so your design will be printed using a small scale factor to compensate for this expansion. The effect will be minimal, but if you compare the measurements of the printed elements with the elements in your original design you will see that there are small discrepancies. Don't be alarmed: when you wet the decals and place them on your scale model, you will see that everything falls perfectly into your place.

9.- Due to the nature of the printing inks used, the decals adjust really well to flat surfaces but they show some difficulties at the bends, edges and sharp areas, such as spoiler edges. In these cases, we recommend that you analyze your design well and avoid designing decals that need to fit tightly curved surfaces or bends. For instance, in the case of spoilers, it is preferable to split your design in two decal sections, one for the top and one for the bottom.
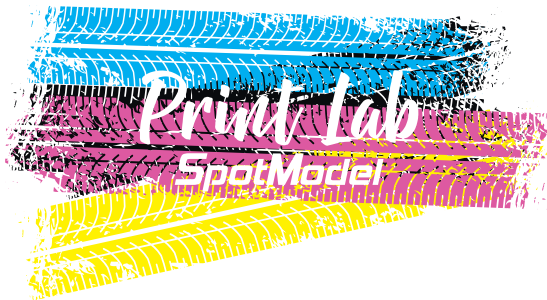
HOW TO USE OUR DECALS

1. Roughly cut around the decal you want to place, in order to separate it from the rest of the decals in the sheet (no need to be accurate at all in the cut).

2. Dip the decal, including the supporting blue paper, for 5 seconds in any recipient with water at room temperature.

3. After the water bath, wait for at least 10 seconds before starting to manipulate the decal.

4. Generously moisten the area where you want to place the decal, this will make the surface slippery and help you a lot during placement.

5. Adjust the decal to its final location with the help of flat tweezers or with a brush moistened with water.

6. To achieve a better grip and tighter adaptation to the surface, you can gently press with a wet sponge over the decal.

⚠ IMPORTANT

• Do not use any products to soften decals (decal softeners), since they are not valid with our decals.

• Never use a hair dryer or any heat source for placing the decals, as they will become damaged.

• For better adhesion, it is recommended to apply the decals over shiny surfaces and use Decal Adhesive of Tamiya.