Laser Cut Studio

- Setup guide -

If you can send us the files correctly set up, it will reduce waiting and production time and also lower any possible costs. Please follow this file setup guide and if you have any questions please contact us via email: **info@lasercutstudio.com**

We can also work from images, but we will need to design vector cutting lines for them first, so we will need to charge a 30€ + VAT minimum design fee.

Please remember that **if your files are not setup exactly as stated in this guide**, then they will be refused and it will slow down the production time of your order. If you are unable to create the files yourself, we can also design them for you. Design fee starts at 30€ + VAT / 30min.

Types of files we accept

Here at Laser Cut Studio we process everything through Adobe Illustrator, so we would advise that all files are sent to us as **.ai illustrator files**. We might be able to also open the following; **.eps, .pdf, .dxf, .dwg, .svg**

Please follow the specific file saving instructions depening on the drawing program you are using.

The printed image does not have to be a vector image. Print images' resolution should be up to 300dpi, and the images have to be embbeded to the file, and text converted to vector shapes.

CHECK LIST

Follow this check list before sending the files

- Artboard matches the size of chosen material sheet size

- Color space is set to RGB and vector lines are red (R255, G0, B0), green (R0, G255, B0) and blue (R0, G0, B255)

- Cutting items are at least 1-2 mm apart from each other

- Items are placed within the orange outlined area found on the template file

- Printing items have 1-2 mm bleeds

- Cutting and scribing line thickness is 0,1pt

- Laser cutting lines do not have overlapping "double" lines

- Engraving areas are marked as RGB black (R0, G0, B0)

- Files with printing do not also include engraving

- Images are embedded and rasterized to 300dpi.

- Text fonts are converted to vectors / outlines

DISCOUNTS

Discount is eligible for the following:
5% discount on orders over 1000€ + TAX
10% discount on orders over 2000€ + TAX

For larger orders we can calculate a case by case offer. Discounts are not applicable combined.

EU and domestic shipping is free of charge when order pretax total is 500€ or more.

TO START

Navigate to the chosen material and sheet size on our website and download the template file of your chosen design program. We supply templates for Adobe Illustrator, CorelDraw and Inkscape.

On our 'How to order' webpage you will also find copies of all the templates in one place.

Helpful Tip - We have **a sample file** also located on the 'How to order' webpage with sample designs all correctly programmed to help understand the correct setup.

LASER CUTTING

There are 2 layers in the model template

DO NOT REMOVE — Locked layer, do not alter or remove

CUTTING — Only cutting, engraving and scribing vectors

Layers

👁	🔒	>	▢ REG MARK DO NOT REMOVE	○
👁		>	▢ LASER CUTTING	○

2 Layers
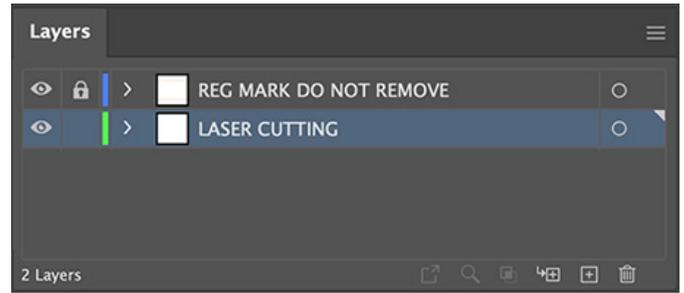
VECTORS

For our machines to understand your design and give the exact results you are looking for, it must be setup in a certain way.
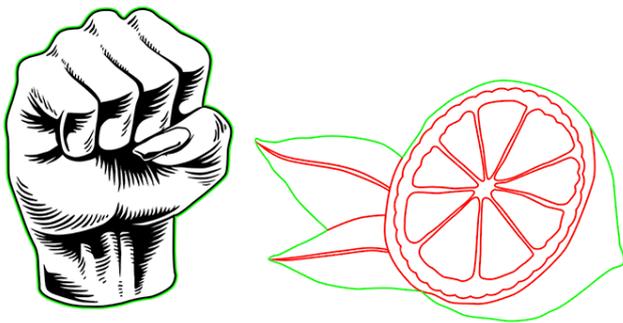
— Exterior cutting line
0,1pt line thickness, RGB green (0, 255, 0)

— Interior cutting line
0,1pt line thickness, RGB blue (0, 0, 255)

— Scribing line
0,1pt line thickness, RGB red (255, 0, 0)

■ Engraving area
RGB black (0, 0, 0)

Stroke

Weight: 0,1 pt

Cap:

Corner: Limit: 10 x

Align Stroke:

Path	⬜	🟥	Stroke: 0,1 pt	—— Uniform	—— Basic	Opacity: 100%	>	Style: ⬜
Path	⬜	🟩	Stroke: 0,1 pt	—— Uniform	—— Basic	Opacity: 100%	>	Style: ⬜
Path	⬜	🟦	Stroke: 0,1 pt	—— Uniform	—— Basic	Opacity: 100%	>	Style: ⬜
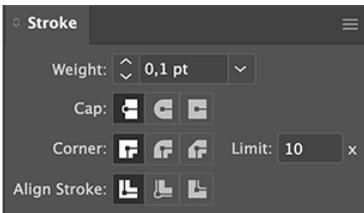
LAYOUT

In order to reduce waste, we charge for the usage of the whole sheet, regardless of the size or quantity of the produced item(s). You can reduce the costs of individual items by laying out the whole sheet with same or different items.

Please leave at least 1-2 mm space between each item. Note that the laser cutter takes away 0,3 mm of the material when cutting.
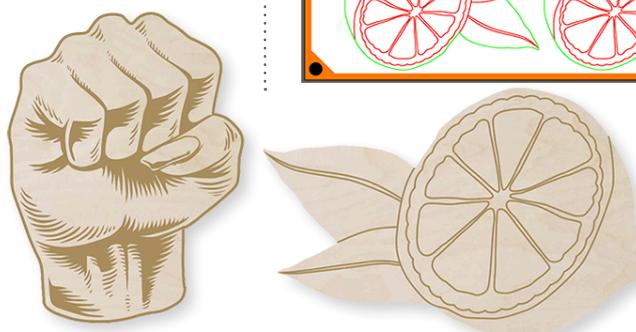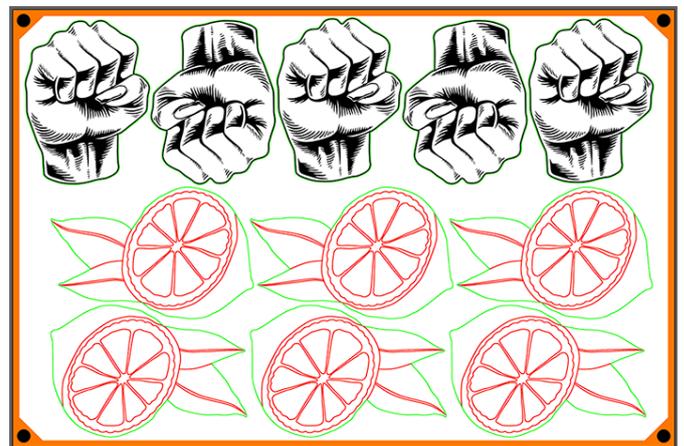
LASER CUTTING & PRINTING

There are 4 layers in the model template

DO NOT REMOVE — Locked layer, do not alter or remove

CUTTING — Only cutting vectors

COLOUR INK — Colour print areas

SPOT WHITE INK — White print areas

Please fill the template by layers so that each layer has only the items you wish to produce according to that layer's name. **You can change the layer order to your needs.**

COLOUR INK: Please provide all files in RGB colour space. Please remember that the material colour you have chosen will effect the printing result, unless you choose to add white ink layer.
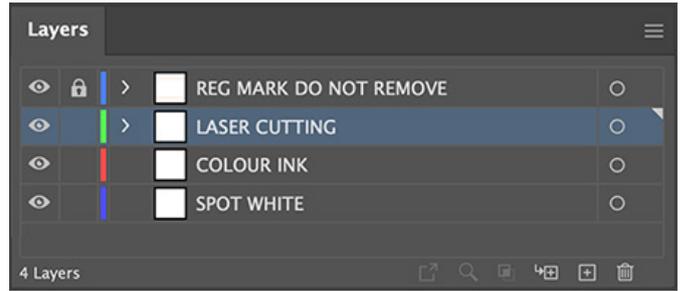
SPOT WHITE: for bright colours, we can print white under the colour print. **Please draw vector areas with infills** in the places where you want white ink to be printed. You can colour the vectors in bright blue so they'll stand out from the white artboard / background.

For an example of how the spot white ink areas can be drawn please see page 4.

PRINT IMAGES

Image embedding

Placed images must be embedded to the Illustrator file before sending it over to us, to avoid losing any linked images. Linked images will show crossed lines when a cursor is hovered over the image.

Click the photo with the Selection tool (black cursor) and you should see the file name and buttons on the up left of the Illustrator menu ribbon. Click on the **Embed** option and the crossed lines will disappear from your photo. Embed all the rest of the linked images to make them a part of the Illustrator file.

You can check the state of your images from the Links panel (Windows → Links). Embedding can also be done from this panel as well, by clicking the three lines menu icon and choosing Embed image(s).
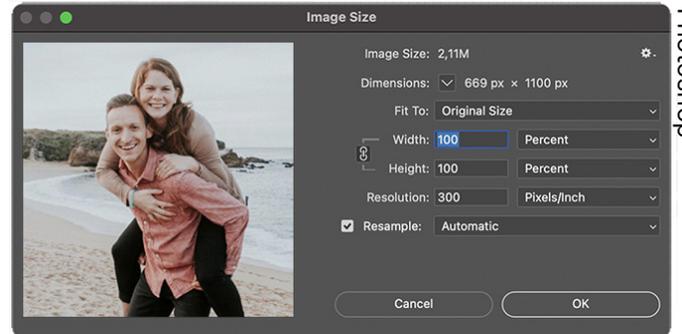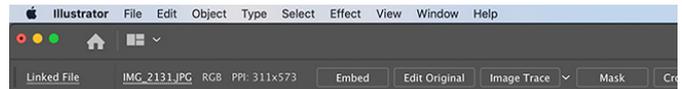
Image and file sizes

The print image can be a vector drawing but it doesn't have to be one. We can print almost any photo, drawing or scanned image. The resolution of the printed image has to be up to **300dpi** and colour profile RGB.

You can edit the size of the print image for example in Photoshop, before embedding it to the Illustrator file. The preferred size is the final size of your print and cut item.

The finished Illustrator file shoud not exceed 200Mb in size. In case the file is too big, the image parts should be **rasterized to 300ppi.**

On Illustrator, click Object → Rasterize. Then fill out the options as seen in the image on the right. Click OK and your image is now rasterized. Do this to all your images to make the file size smaller.
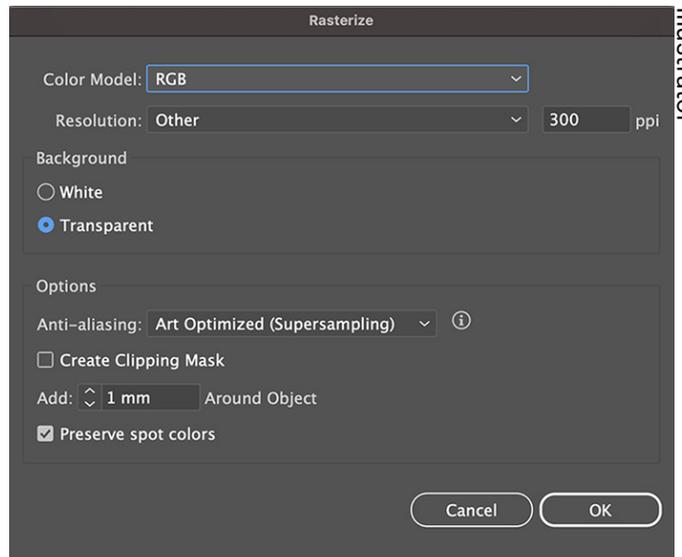
LASER CUTTING & PRINTING

Colour printing

Place your photos and images or draw the artwork you want to print on the material. It is advised to have at least 1-2mm bleeds on each item. Bleeds are extra printing area that extends over the laser-cut lines of each object. In production there is a 0,5mm alignment tolerance between cutting and printing.

Example file with Colour printing and Laser cutting layers visible →

None of the white areas in the images will be printed, meaning the colour of the material will show through. Printing on coloured materials will alter and darken the printing colour. If you want to have bright colours or colours that are not effected by the material colour, please use the WHITE INK PRINTING layer for adding white areas to your design.

Example file with printing on plywood without and with white ink under the colour ink →
White ink under the images brightens the colours.

Please note that other materials will appear differently depending on the colour of the material.

White ink printing

Draw only vector areas that you want to be printed with white ink. You can use a placeholder colour such as light blue as area fill, with no outlines. White ink brightens up the colours that are printed on top.

Example file with Spot white colour layer visible →
The spot white areas are drawn as infilled vector areas in bright blue. Note that the chosen colour is not printed, it is replaced with white ink.
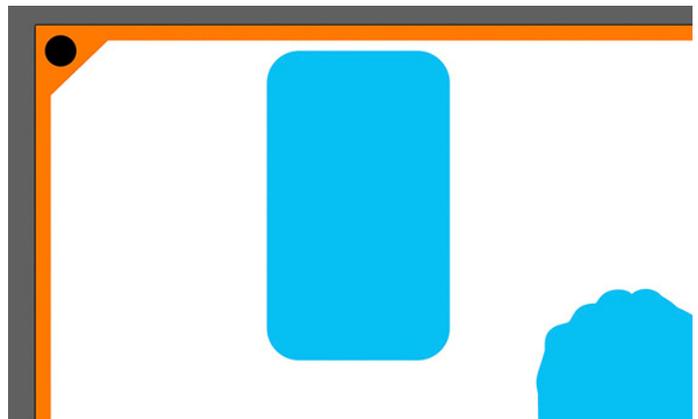
Double-sided printing

We can print plywood sheets as double-sided, either with the same file or with another image file that's placed on the back.

If you want to use a different file for the backside, or your file has text on it, please follow the instructions below.

If you want to use the exact same file so the backside is identical then you can leave the other artboard blank and we will duplicate the front side for you.
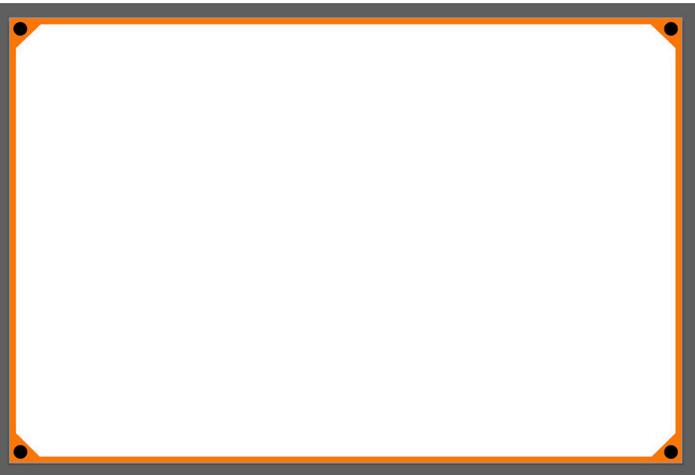
1. Draw a rectangle in the size of the whole artboard, making sure it is exactly corner to corner.

2. Select everything on the artboard including the rectangle
   • make sure "Paste remembers layers" is selected in the Layers menu (Illustrator)
   • Copy and paste

3. Mirror everything **vertically**. This way everything stays in place on the artboard when aligned with the front.

4. Align the rectangle you drew to the second artboard in the file
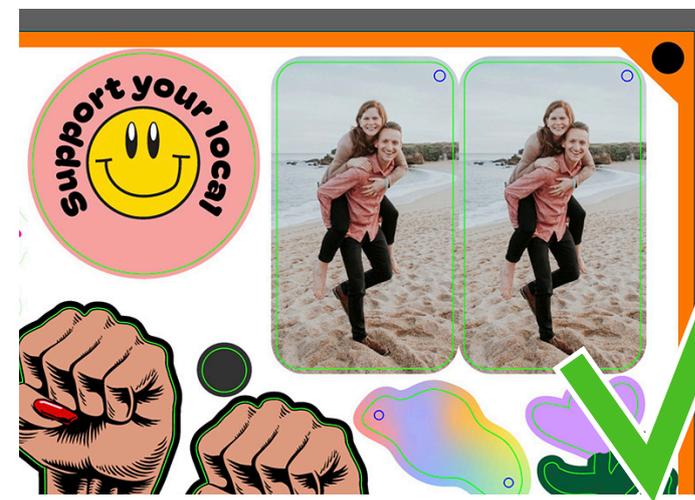
5. Remember to mirror possible text elements around their own axis once more to make them readable.

Saving instructions

Adobe Illustrator

Click File → Save as → Adobe Illustrator, with the newest version available.
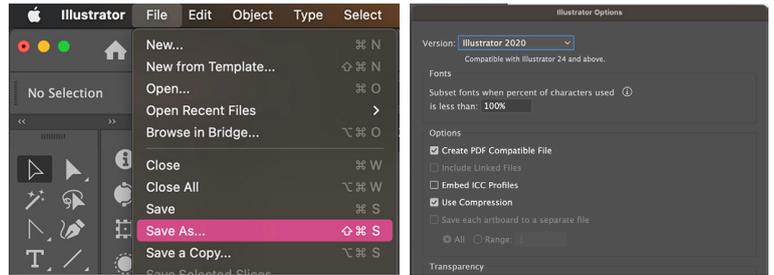
Corel Draw

Click File → Export... → Choose AI - Adobe Illustrator. Click Export... and fill out the selections as shown.
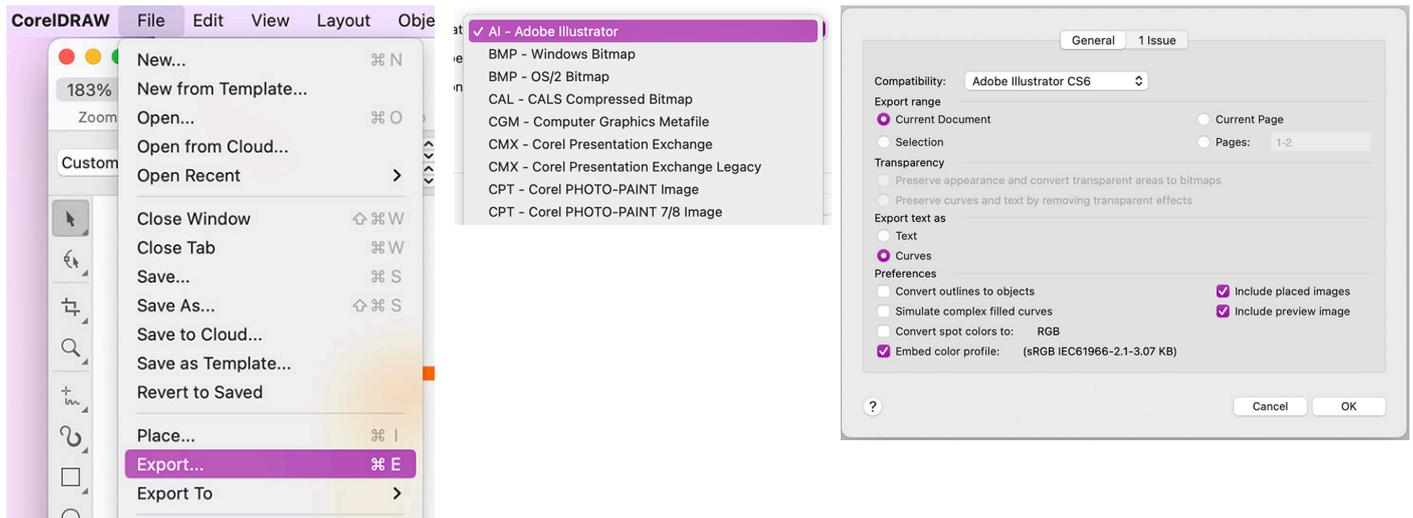
Inkscape

Click File → Save as.. → Portable Document Format (PDF) Make sure the rasterisation (dpi) is 300dpi for printed images.
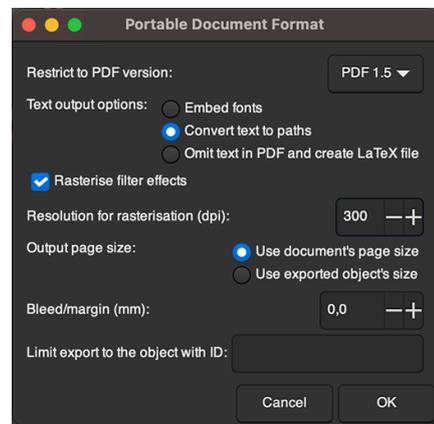
Special things to note

You can layout your designs on the sheet remembering that you will pay a flat rate price per sheet, so it's advisable to fill up the sheet as much as possible, **however please keep in mind the following:**

1. Place items **at least 1-2 mm apart from each other, and within the outlined area**. No items should be overlapping or outside of the artboard and all items have to be within the outlined area.

2. It is advisable that you **make the printing at least 1-2 mm larger** (bleeds) than the cutting line to ensure there are no visible edges in the printed items.

3. Images need to be **embedded** in to the file and texts **converted** into vector paths. Please check further instructions on page 3.

4. In production, there is a **0,5mm alignment tolerance** between the cutting and printing.

5. Laser takes away about 0,3mm material as it cuts.

Uploading & Ordering

When you have completed setting up your files and have saved them correctly, simply drag-and-drop the file or select 'upload file' on the product page you would like to order. Once upload is complete you can then proceed to checkout.

Top Tip! If you create an account, your order and uploaded files will be saved so that in future you can quickly order more of the exact same file.

You will receive an order confirmation email once you have completed payment & checkout. All orders are sent out within 5 days. If there is any possible delay to your order we will contact you right away.

Terms & Conditions

General

Our production quality standard is -5%, for example if a sheet has 80 items within it, you may receive up to 4 items that may have small defects. (Normally a client receives 100% perfect items in the majority of orders).

Our printing inks have achieved a sustainability GREEN GUARD Gold Certification. Low emissions for sensitive indoor applications such as schools, hospitals and hotels. We only use the highest quality certified sustainably sourced wood with M1 class low VOC emission. Our products do not have any food safety and/or child safety certificates. They should not be used with direct contact to food.
All products are designed for interior use, they should not come in contact with chemicals or solvents as this may affect the material or printed artwork.

Produced items will arrive with a protective cover attached. This must be removed as soon as possible to not damage the material surface.

Plywood

Our plywood products are made from the highest quality of wood available, with a surface quality grade of AB. This means the surface will be free from knots, patches and discoloration in the wood. Because wood is a natural material it will have variations in the colour, pattern and texture in the surface.

Wood has a natural colour which will affect the way your design will appear. Normally this will make colours look slightly darker, especially compared to how they may look on a computer screen. We advise that if you are unsure of how your artwork will look printed on wood, you should request a sample before making your order. We do not edit or modify artwork before printing.

Due to plywood being made of a natural material that has varying density it is possible some edges of the laser cut parts are darker than normal, have small hollow areas or may have small chips where the laser hasn't cut all the way through.

Artwork

We do not edit or modify your artwork and / or printing colours. We advise clients to always use RGB colour settings in their artwork for best results. Exact matches of Pantone or CMYK colours are not achievable in the printing process due to the colour of the natural wood. If you require colour matching, we can offer samples to test before an order is made.

We have an alignment accuracy of +/- 0.5mm, we strongly advise that for any items that have a print extending to the edge of the product, a bleed no less than 1mm is added to the artwork.

We can help you design your items and their production files for a fee based on the used time: The designer can crop the photos and images sent by the client, create cut lines according the desired product size and shape, and create print bleeds. We do not edit photos or their colours.
The client is responsible for checking and confirming the designs based on the screenshots or files provided by the designer, to make sure that the file matches what the client wants to order.

The designer can help to make the production files according to our file setup guide, but unfortunately, cannot guarantee the design will work. It is recommended to order a small 300x200mm sized sheet first.

At the end of the design service, the client can request their production files (Adobe Illustrator) to themselves, for further editing and usage. We do not store client files and it is recommended to always send the files needed for the order.

Returns & Refunds

All products are produced accurately according to the artwork supplied. If there are errors in the design that was given to us, the product is considered to be successfully produced, It is the responsibility of the designer to ensure the artwork is correct before making the order.

If you receive items that do not match your artwork, or have any defects in the production over the 5% quality tollerance. You must contact us within 7 days of recieving the order.

If you receive damaged package please contact us right away, with photos of the damage to the product and packaging.

Under EU's consumer rights law, custom-made products cannot be returned for refund as the items cannot be reused or resold. If the product has been accurately produced to the artwork given and there are no production defects. The items cannot be returned.

If it is found that there are more than 5% items with defects within a sheet, then the consumer can choose two possible refund options:

1. You can return the full sheet within 14 days and we will remake and send the new items free of charge.
2. We can give a discount on your next order or give a credit note, based on the % amount of defected items.

You must contact us within 7 days of recieving the order with photos of the faulty items. You must return the items within 14 days of recieving the order.