ABET LAMINATI

Digital Factory

ABET LAMINATI
Unlimited selection

Digital Factory

A boost of design, technology and beauty has arrived in Abet.
The new printer is capable of producing up to 400 square meters per hour of sheets with a maximum width of 2,200 mm with paper rolls up to 400 mm in diameter, managing up to eight colors with six printing heads for each color and a maximum resolution of 1200 dpi.

The new printer joins the four plotters already operating in the factory in Bra and it is the maximum expression of the new Abet "digital factory" which offers spaces, equipment and workstations dedicated to customers looking for rapid prototyping.

Digital printing | General information

SOFTWARE

Thanks to specific software, you can create and customize files for the production of HPL laminates with decorative surface printed with digital technology.

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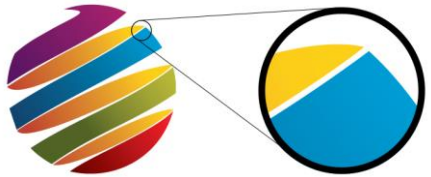
Digital printing | General information

IMAGE TYPES

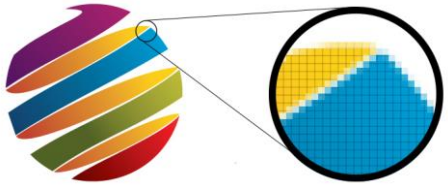
- The vector images are composed by a set of geometric shapes (points, lines, curves and polygons) which can be enlarged - regardless of their original resolution – without losing quality or definition.

- The BITMAP images (called also raster images) are composed by colored pixels, namely single dots that compose the picture and have own dimension and quality. When images are enlarged, they suffer loss of details and appear grainy (visual effect called «pixelation»).

- For digital printing projects the proper resolution of BITMAP images, to ensure good quality for the production of laminate surfaces, is 300 dpi. Images with resolution up to 600 dpi, can be handled to achieve better results.



Vector images



BITMAP images

High Resolution Image

Low Resolution Image

The result of enlargement of a picture with an original low resolution (below 300 dpi).

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Digital printing | General information

RGB vs CMYK

Usually images are defined by the RGB color space, but they are converted into CMYK (corresponding to the 4 basic colors) for printing.

ABET professional machines use CMYK configuration which might determine a difference between the image shown on screen (RGB) and the image printed on paper.

It is possible that, through this process, some colors change hue and saturation. The difference between RGB and CMYK doesn't allow perfect color fidelity.

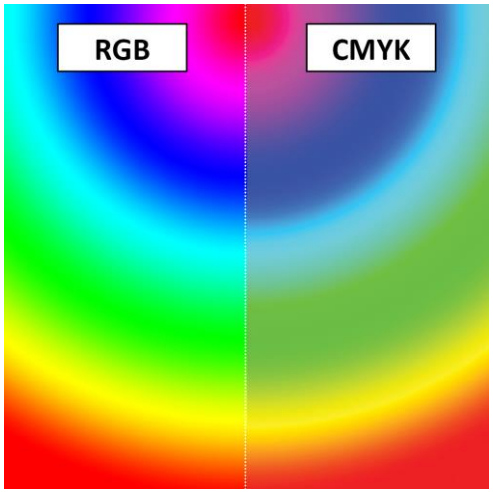

IMAGE REQUIREMENTS

Original image characteristics (scans)
- Maximum dimension: 120x200 cm
- If the image is bigger than the indicated size, the customer's authorizazion for cutting is required.

File formats
- Vector images
- EPS
- TIF
- JPEG
- PDF

Formats not suitable for printing
- BMP
- DWG
- DXF
- GIF
- PNG

Image banks (only for HD images)
- www.shutterstock.com
- www.123rf.com
- www.depositophoto.com
- www.istockphoto.com

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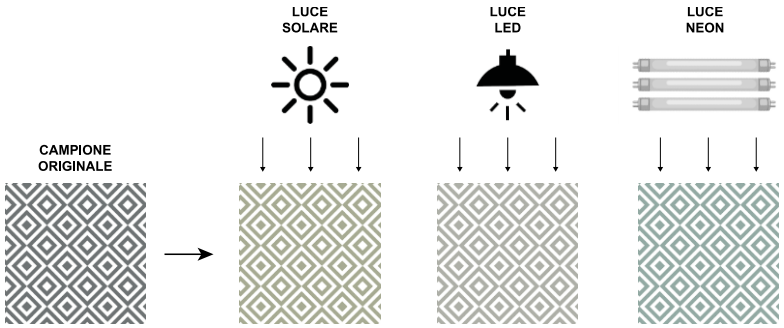
Digital printing | General information

METAMERISM

With the digital printing the phenomenon of METAMERISM is always present and is more visible with neutral tonalities on full base colors.

During the sampling phase, it is recommended to communicate where the laminate will be applied and it is necessary that the observation of the sample always takes place under the same light conditions.

In Abet, an observation room simulates the different light sources to verify how colors are perceived in different conditions. By using a spectrocolorimeter it is also possible to measure the color perceived to correlate the perception of color to numerical values within a color space.



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Digital printing | General information

SUBDIVISION OF IMAGES ON MULTIPLE PANELS

Abet processes the file according to the customer's preferences and prints complementary images that are laminated on multiple panels, featuring cutting marks and proper indications to facilitate the machining and installation of HPL panels.

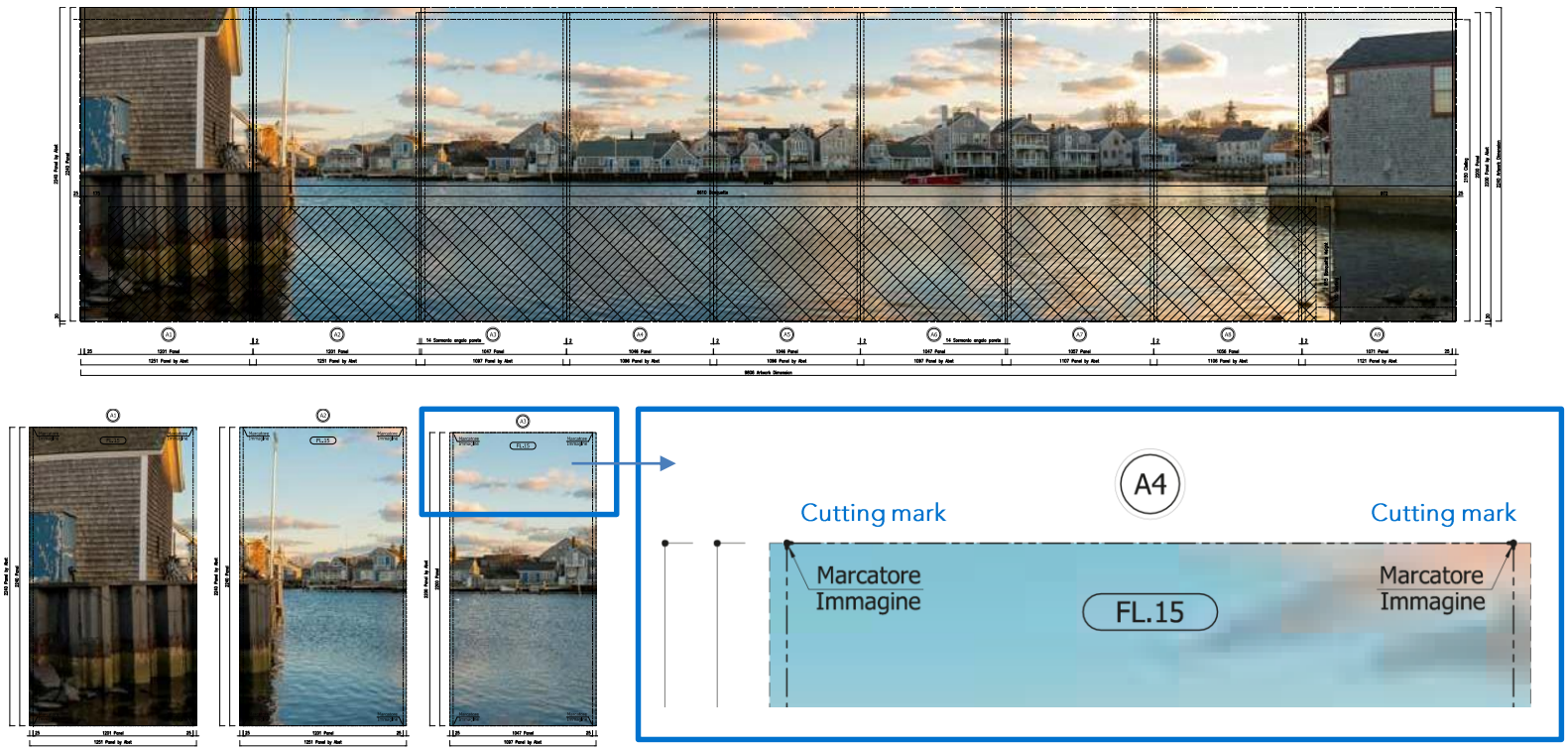

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IMAGE VIEW ON MONITOR

In case the customer has a professional monitor that allows the management of a color profile, it is possible to download it from Abet Laminati website aligning the colors visualization between Abet systems and his / her own computer, achieving therefore a good approximation of the real reproduction of colors on the panel.

GEOMETRIC DESIGNS

In the digital printing process the orthogonality of the geometric design might suffer an unpredictable variation in a range of 1mm per linear metre in both dimensions.
This has to be considered a feature of the product.

BASIS OF PRINTING

To ensure a better coverage and color rendering of the design, digital printing is carried out on a white base which might originate an almost imperceptible line between the decorative and the core of the panel.

PROCESSING AND BALANCING OF DIGITAL PRINTING PANELS

For the processing and the balancing of digital printing panels glued on supporting materials, it is necessary to follow carefully the indications in the document «Technical Information Service» (available on Abet Laminati website) and eventually contact the local sales manager for more specific information.

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SIZES

Size code	Panel dimension (mm)	Maximum printing area (mm)	Maximu printing area (mm) for multiple identical images
24	2440 x 1220	2420 x 1190	2400 x 1170
30	3050 x 1300	3000 x 1280	2980 x 1260
42	4200 x 1300	4150 x 1280	4130 x 1260
46	4200 x 1610	4150 x 1580	4130 x 1560
48	4200 x 1860	4150 x 1840	4130 x 1820

For further information, please contact your local sales representative.