



petratex



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DIGITAL PRINTING
ORGANIC PRODUCTS
GOTS CERTIFICATE

ADVANTAGES

*OF DIGITAL PRINTING AND SUBLIMATION PRINTING
IN SUSTAINABLE TERMS*

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According to **FESPA**, a federation that encompasses all types of printing and which has a total of 37 associations of different nationalities in the silkscreen, digital printing and conventional textile printing community, **states that digital printing has led to savings of more than 40 billion litres of water worldwide in the year 2018, compared to conventional printing.**

According to the **Epson Textile Solution Centre** in a recent study, **it was found that conventional printing has a carbon footprint that is 40% higher than that of digital printing.**

In fact, conventional printing also consumes large amounts of water and energy, further contaminating the environment with dyes and chemicals.



Digital printing not only drastically reduces water and energy consumption, it also reduces ink consumption, which is normally 10% less than the volume used in traditional printing.

This was one of Petratex's main concerns when it decided to invest in digital printing.

Petratex has had a long-standing environmental concern:

- It has an energy production capacity of 900kw in solar panels, covering 100% of the installed power, producing around 864Mwh and avoiding the emission of approx. 380 tons of CO2 (2020 data)
- All purchased energy is green energy. We enter into contracts only with suppliers that certify that the energy they supply us is produced only from renewable sources.
- We use solar light harvesting systems, solar tubes, and LED lamps for lighting.
- The office building is all glass and is oriented to have the best sun exposure in order to provide the best and most stable sunlight during the day.
- Whenever possible, our equipment has frequency inverters to increase efficiency and thus reduce energy consumption.
- We have implemented real-time energy monitoring and control systems in accordance with industry 4.0.
- We have a wastewater treatment plant and we use treated water whenever possible. In particular for general cleaning and toilet flushing.
- We use electric robots to transport cargo/productions.



We create a cleaner,

more sustainable world

we make the right

energy choices!



In digital printing, we can produce using different processes each with its environmental advantages:

Digital process with pigment dyes for placement printing.

This process can be done in several different fabric compositions:

- 0% water consumption and reduced carbon footprint.
- Biodegradable water-based inks.
- No pre-treatments or washings are necessary, thus giving a considerable energy saving.
- Process with GOTS certification – Global Organic Textile Standard Version 6.0.
- The inks are from Israel and have Oeko-tex standard 100 certification and are also part of the ZDHC – Zero Discharge Hazardous Chemicals product listing, on the MRSL – Manufacturing Restricted Substance List.
- Range of eco & animal friendly dyes. The supplier declares that it does not perform tests on animals.

Digital printing process with reactive dyes, for cellulosic and organic fibers such as cotton, linen, viscose, modal, lyocell, etc.

- Water-based inks.
- Process with GOTS certification - Global Organic Textile Standard Version 6.0.
- Less water, energy and ink consumption compared to conventional printing.
- These inks are from Great Britain have Oeko-tex standard 100 certification and are part of the ZDHC - Zero Discharge Hazardous Chemicals product list, on the MRSL - Manufacturing Restricted Substance List.

Digital printing process with acid dyes for printing on polyamide, silk or wool:

- Water-based inks.
- Less water, energy and ink consumption compared to conventional printing.
- These inks are from Great Britain and have Oeko-tex standard 100 certification and are part of the ZDHC - Zero Discharge Hazardous Chemicals product list, on the MRSL - Manufacturing Restricted Substance List.

Digital printing process with dispersed dyes on paper for subsequent sublimation:

This process has considerable environmental advantages, due to:

- Minimal ink waste.
- Use of water not needed as in the normal process.
- Sublimation is suitable for polyester fibers. This is one of the fibers with the lowest water consumption in its production and can be recycled from various sources and for various purposes, including fabric. That's why it's also a sustainable fiber.
- The inks are water-based.
- The process is certified by GRS - Global Recycled Standard.
- These paints are from Italy have Oeko-tex standard 100 certification and are part of the ZDHC - Zero Discharge Hazardous Chemicals product list, on the MRSL - Manufacturing Restricted Substance List.

Regarding the paper we are using:

- All the papers we buy come from European producers, namely from the Netherlands.
- They are FSC - Forest Stewardship Council and PEFC - Program for the Endorsement of Forest Certification, so the entire procurement, handling and production chain is properly controlled, ensuring a lower impact on the environment and its resources.
- The paper used in sublimation printing can be reused or recycled for other activities such as packaging and stationery.

As can be seen, we are concerned with choosing European suppliers, whenever possible, to reduce the carbon footprint related to transport.

All empty ink containers and used paper are collected to be recycled.



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WE ARE
100%
CERTIFIED
GREEN ENERGY