What are the requirements to make printing sustainable?

According to recent research, the history of printing begins in 3500 B.C., when Persian and Mesopotamian cultures began using cylindrical seals to certify documents written in clay. In China, woodcut on paper appeared in 200 B.C., and in the 15th century the first movable type printing press began to spread in Europe. Over time, printing systems evolved, even going so far as to reproduce photographs and illustrations and enabling the production of hundreds of thousands of printed objects.

Printing is an industry using inks, thinner solvents, paper (which in turn requires the use of forest resources), energy and expertise.

Fedrigoni produces high quality specialty papers and self-adhesive materials aiming to be the best suppliers for the best customers, producing responsibly and making products that meet creativity and technical needs of our customers, and last over time. That is why we always promote these ten aspects when thinking about a printing process:

1. Choose **paper** wisely. Consider at the design stage the number of pages, copies, weight and sizes (to minimize waste); also consider using thick paper to reduce the overall weight of the work.

2. Consider **content**. Prefer FSC® (Forest Stewardship Council) labeled papers, and consider the requirements: appearance, touch feel, and life of the final product. Recycled papers have some ecological advantages, but for absolutely brilliant color reproduction, absolute consistency among batches, or even special mechanical performance, virgin fiber papers prove to be the best choice.

3. Get information about **ink**. Printing inks should contain only vegetable oils and be free of mineral ones and dangerous substances (such as cobalt and its components).

Bits on sustainability are written by Fedrigoni's Sustainability Team and are part of the Group commitment to spread the culture of sustainability.

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Waterless printing plates

Sources:

Group Code of Ethics

Group Sustainability Policy

Group Sustainability Report

4. Take **de-inking** into account. If you use special colors, varnishes, and toners for digital printing, de-inking is a key requirement.

5. **Special effects** can be sustainable. Encourage adhesives, films, special effects inks and paints that can be separated from paper and are free of dangerous substances; avoid lamination.

6. **Energy**. The print factory should use only certified green electricity, generated - if possible on site - from non-fossil sources so as to reduce CO_2 emissions.

7. Eliminate **chemicals**. The printing process should be free of PAHs (polycyclic aromatic hydrocarbons) and reduce printing washes that contain VOCs (volatile organic compounds) and have the greatest impact on eco-balance and a healthy work environment.

8. Understanding **labeling**. FSC® considers the origin and responsible management of the forests where the pulp comes from. FSC® is a chain of custody thus all players in the supply chain (printer, converter, not just the paper mill) must be FSC® certified to put the label on the printed product.

9. Check **certification**. Environmental management systems certified by ISO 14001 and EMAS, foster ongoing improvement in environmental performance such as energy consumption, material use, waste quantities and emission balances.

10. **Offsetting**. Paper can have a huge impact on a printer's carbon footprint; to mitigate the impact there are several industry-specific metering programs capable of calculating and offsetting the emissions generated by production. Offsetting CO_2 emissions, however, should remain a last resort; it is a necessary but not sufficient measure to achieve carbon neutrality and should be planned later than reducing one's own emissions.

Making it Happen. Making a difference
Making Progress

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