



Ink and consumables

Being green: Eco-friendly inks and processes to support environmental goals



Whether companies refer to it as eco-friendly, sustainable or biodegradable, manufacturers are looking for more ways to “be green” with their packaging.

While eco-friendly packaging is one way to benefit the environment, there are a number of other actions that can contribute to a greener planet, as well as offer additional rewards to manufacturers. Considering all areas of the manufacturing and packaging process, including printing and coding equipment, can help reduce waste, improve efficiency, save money, and help maintain and attract business.

The challenge

An increasing number of manufacturers are committing to environmental initiatives, but ‘being green’ can mean a lot of different things to different people, based on market segment and what is important to both customers and the manufacturers.

Recognizing all areas where improvements can assist in ‘being green’ is not always easy, especially in manufacturing facilities with a wide range of equipment and a variety of processes.

Videojet advantage

Videojet has a long-standing commitment to helping customers achieve their sustainability goals by identifying potential improvement areas in the coding and marking process, including the development of new printing technologies and environmentally-friendly inks.

Research and Development at Videojet is committed to providing safe, high-quality, reliable products that avoid using any materials not compliant with RoHS. We are compliant with REACH, a European Union regulation that addresses the production and use of chemical substances, and their potential impacts on both human health and the environment. The team of expert ink chemists strive to formulate new fluids for customers who have established environmental sustainability objectives with a particular focus on reducing their use of certain solvents, such as methyl ethyl ketone (MEK) or Methanol.

Green coding



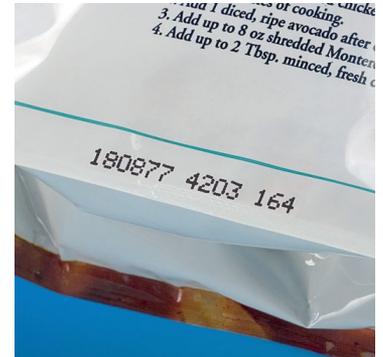
Understanding inks

A solvent is one component of ink that works as a carrier for the dye and resin, and is crucial to the application process as it can impact properties such as dry time and adhesion. Many chemicals can be used as solvents including MEK; however, an increasing number of companies are looking for ways to reduce their use of such solvents in their production.

Videojet has developed low Volatile Organic Compound (VOC) fluids to assist customers in complying with VOC regulations. Each regulating body has its own definition of “low”. Once you have established what “low” means to your business, you can compare this to the VOC information provided on the material safety data sheet.

Not all applications can use low VOC fluids – in some cases using low VOC fluids could have a greater environmental impact than the use of high VOC fluids.

With manufacturers' goals of reducing VOCs and Hazardous Air Pollutants (HAPs), carcinogens, mutagens, allergens or any other materials of concern, while meeting different green requirements, Videojet offers dozens of inks that employ alternative solvents such as ethanol, acetone and water.



“We aim to assist our customers in reducing the environmental impact of their operations and to provide solutions that meet the requirements of various regulatory bodies”

Sherry Washburn, Business Unit Manager of Global Supplies.



Low-odor

Certain consumable goods and foods tend to acquire odors from their environment during manufacturing, packaging and coding processes. To address this, Videojet's low-odor inks have been specially formulated with solvents and compatible resins/dyes that are virtually odor free. They are designed to reduce the need for air venting and offer the least impactful coding process possible.

Ideal for: bread and pastry packaging and other food packages that are coded in close proximity to the food filling process and tobacco products packaging

No-MEK

Even though MEK is not classified as a HAP (hazardous air pollutant) nor an ODC (ozone depleting chemical), local regulations and preferences can limit use of MEK-based inks. The MEK-free ink range matches to a wide variety of surfaces, coding processes and durability requirements. Some of these inks can also offer increased printer operating efficiency to further reduce solvent consumption

Ideal for: food containers, cans, pouches, bottles, etc., comprised of LDPE, HDPE, polypropylene, polystyrene, PVC, ABS, polycarbonate, stainless steel, tinplate, aluminum and glass

Fast dry

As a fast drying solvent, acetone is free of Volatile Organic Compounds (VOCs) and provides good code durability. Codes printed with Videojet fast dry inks dry quickly to prevent smearing and offsetting.

Ideal for: high speed production lines that commonly incur product-to-product contact from adjacent products, or products that come into contact with production line rails and belts shortly after coding due to manufacturing line constraints; geographies with more stringent VOC permit requirements and regulations, or companies that have adopted specific corporate initiatives for VOC reduction

Halogen-free

Specially formulated halogen-free inks designed to meet stringent standards expected in the electronics industry. Codes provide durability for abrasion, temperature and chemical resistance.

Ideal for: Use on RoHS compliant products (EC 2011/65/EU Annex II) suiting a host of applications including printing on heat sinks, capacitors, connectors and high insulation tapes.

The Videojet 1000 Line continuous inkjet printers have been designed with efficiency in mind; offering long life through the sustainable core and replacement parts, resulting in a reduction of raw materials and energy consumption.

Reduce, reuse, and recycle

Another way to minimize the impact that coding and marking has on the environment is to reduce the use of excess materials in the packaging process. Using Videojet inkjet printers to code directly on a package rather than coding a label that is applied to the product can help companies meet their recovery, recycling and reuse targets. Videojet also helps to reduce waste by using materials to package and ship supplies that can be easily recycled at the customer site.

The 1000 Line SmartCartridge™ fluid delivery system offers several key performance benefits, minimizing fluid waste and reducing make-up consumption.



The Bottom Line

There are many ways for manufacturers to contribute to a greener planet. Although the coding and marking process may not seem a large factor, Videojet take their role in the environment seriously and aim to support in customer's goals; large and small.

Many printers offered by Videojet are designed to achieve low emissions and our wide variety of environmentally-friendly fluids support the varying green requirements of the manufacturing industry.

For more information or a free consultation, contact your local Videojet sales representative.

Call **+91 75063 45599**
Email **marketing.india@videojet.com**
or visit **www.videojet.in**

Videojet Technologies (India) Pvt. Ltd.
Unit No. S-220 A, 2nd Floor,
Eastern Business District,
L B S Marg, Bhandup West,
Mumbai - 400078,
Maharashtra, India

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