

TECHNICAL GUIDE

INK

FREQUENTLY ASKED QUESTIONS
INKS COMPARED

Second Edition

FREQUENTLY ASKED QUESTIONS

1. Which is the most widely used type of ink in wide format digital printing?

Solvent inks are the most common. They are cheap and perform well, producing brilliant colours on all sorts of media. They are very durable and UV light, scratch and water resistant, but need special ventilation systems to protect operators from the nasty fumes they produce.

2. What is the main difference between conventional screen printing inks and the inks used in inkjet printing?

Screen printing uses a huge variety of inks suited to the application. Inkjet printing systems are limited to inks suitable for the printhead and printing system. There are however many options for inkjet including pigment and dye based inks, with various carriers including water and solvents, and special recipes such as UV-curable and latex inks.

3. What are Volatile Organic Compounds?

VOCs are a class of chemicals emitted from liquids and solids that evaporate at low boiling points. Depending on quantities, they can be toxic. They have a wide range of volatility and use of these chemicals is strictly regulated.

4. How do I know if a digital printing system requires an extraction system?

This depends on your factory, local laws and the ink you use. UV-curing inks contain very small amounts of Volatile Organic Compounds (VOCs) so generally do not require ventilation systems. Solvent and eco-solvent inks contain VOCs and generally do require ventilation systems to protect operators and comply with local laws. Be sure to read the Materials Safety Data Sheet supplied for how to handle the ink.

5. When should I consider using mild or eco solvent inks?

Consider them if you don't want to invest in an air purification system, but want the performance of solvent inks. They use fewer VOCs but this can compromise colour brilliance and the durability of the prints.

6. Are there metallic versions of solvent, eco-solvent and uv inks?

Metallic inks have large metal particles which are detrimental to digital printheads, so screen printing still dominates the use of metallics for sign and display work. Eco-solvent and nonsolvent metallic inks are available for digital printing, but the range is limited.

7. How much should I be prepared to pay for ink?

Ink and print processing technology changes constantly. Most ink suppliers prefer a close relationship with customers, so prices vary with volumes and type of ink. Be prepared to pay more for specials and low quantities.

8. What is the Solvent Emissions Directive and does it apply to me?

The SED is a European regulation limiting emissions of VOCs used in organic solvents in order to protect health. It applies to any installation that uses solvents, including printing companies using inks containing solvents.

9. What is the difference between solvent and eco-solvent inks?

Both inks contain solvents however they vary in the amount and their properties. Eco-solvents generally have less VOCs than solvent inks, and a lower odour.

10. Can I get Pantone colours in solvent, eco-solvent, UV inks?

UV curing specials are available from some manufacturers for conventional printing. Digital press manufacturers sell special colours based on solvent and reduced solvent formulas, as well as UV-curing inks.



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