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UV Inkjet in India

This technology is very important from an Indian perspective as the environment is dusty and fast UV curing coupled with closed AC environments prevents dust settling onto high quality prints. Also, with concerns about the eco-friendly parameters of the printing techniques, UV is seen as an option to conventional digital printing using solvent inks



Introduction

UV-curable inks have been used in the conventional printing sectors of offset, screen, flexo and gravure for much more than a decade, and in all of these processes UV inks continue to win market share from other ink types, often accounting for 20% or more of the ink market in such sectors. It is well known that energy-curable inks and coatings provide valuable emissions control advantages but the real market drivers are improved product performance and increased production efficiency. Specifically, traditional energy-curable (e.g. UV&EB) systems provide increased energy savings, faster production rates and floor space savings. Also, low odor/low extractable materials, zero volatile organic content (VOC) and virtually zero hazardous air pollutants are key advantages.

By contrast, the introduction of UV inks into inkjet has come very late in the day. Stowe, Caiger and Fuchs have described the benefits for UV-inkjet systems in their research. They suggested that the potential benefits specific to UV inkjet are zero solvents/VOCs, which facilitates long nozzle open times, hence greater jetting reliability. The life expectancy of the

inkjet print head is increased because there is no drying or clogging in nozzles associated with the use of UV-cure inks. Compared to jetting solvent based formulations, UV inks offer significant head reliability and performance in this area. Instantaneous drying upon exposure to UV radiation as opposed to water or solvent evaporation increases production efficiency. They also suggested that improved opacity and decreased dot gain resulted in improved print quality. At the same time, final prints exhibited increased weatherability, scratch and chemical resistance and decreased odor and taint.

Indian Perspective

More than 50% of India's population is below the age of 25 and more than 65% hovers below the age of 35. Moreover, with a large number of malls, retail outlets opening and the automobile sector booming there is tremendous opportunity. for indoor / outdoor marketing media which translates into a lot of printing. The solvent inkjet printing system is relatively toxic both for the printer, print buyer and the public. The cost factor (per Sq. Ft. model) still makes the solvent inkjet printing systems favorites. However, with the benefits of UV digital printing as mentioned before it is slowly receiving the much needed recognition and acceptance from the market. Another advantage of UV digital printing process is that it can be housed in a closed AC environment. This is very important from an Indian perspective as the environment is dusty and fast UV curing coupled with closed AC environments will prevent dust settling onto high quality prints. People, organisations & corporate houses are starting to be concerned about the eco-friendly parameters of the printing techniques, which is why they are considering UV as an option to conventional digital printing using solvent inks.

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Perspective from Industry Players

“the future for UV digital printing in India is bright and it is the way to go. It is next best to being green”

Ravi Jasra a leading printer using UV digital printing technology feels that “the future for UV digital printing in India is bright and it is the way to go. It is next best to being green”. *Mr Ravi Jasra through his company Jastras has been using UV digital printing technology from the past 2 years to print on innovative substrates including stone, wood, steel, glass and a wide range of rigid and flexible substrate.*

“UV inkjet technology on the rise in India, picking up well”

“Consumer mindset should change from cost/sqft to quality and properties achieved”

Paresh Shetty of HP believes *UV inkjet printing is on the rise and it is only matter of mindset of the printers and the consumers to make this technology successful in India. Corporate houses are already going for UV technology compared to Solvent, as it is a more sustainable option.*

“UV printing is the step forward to go as it is a faster and safer option”

“Cost-effective inks is the key”

Kishore Musale, Chairman of Classic Stripes Pvt. Ltd *is an enthusiastic supporter of UV inkjet printing technology and is translating the same into investment in this technology.*

Conclusion

The digital printing industry in India is accepting and understanding the benefits of UV inkjet printing. However this technology needs to be handled with care, proper HSE precautions should be adhered to by the ink manufacturers and printers. If proper care is taken this technology is definitely safer than solvent. The final outcome & quality should determine the ink technology used to print and dependence on the cost/sqft model should be decreased. Volumes are still high for solvent but UV is slowly eating into its market. The success of UV digital printing technology in India will depend on how well it is accepted and with what frequency it is pushed into the market.
