GRAPHIUM®


# Embrace complex projects requiring a wide colour gamut

Graphium Inks are designed to combine high quality image formation and long run reliability with the adhesion, resistance and durability needed for printing labels and self adhesive decals. This blend of properties is achieved from the management of the complex interaction between print head, inks, UV curing and overall system design.

## High quality, vibrant printing with excellent adhesion, light fastness and durability

Graphium Inks are formulated by combining the chemistry required to provide the end use properties with the physics needed for correct and consistent jetting performance. It is this ability to combine technologies that has allowed the production of inks that have a good adhesion, light fastness and wide colour gamut, while maintaining long run image formation. In addition to the vibrant colours, Graphium Ink includes an ultra opaque white that can be printed at high speed, setting a performance standard that surpasses other digital printing technologies. The end result is a true digital emulation of traditional printing processes such as UV flexo and screen printing.

Graphium's leading edge UV curable inks, have been especially formulated for the press and supported substrates. These inks have controlled surface tension and viscosity to manage the ink-substrate and ink-ink interactions during printing.

UV curing is a photochemical process in which high-intensity ultraviolet light is used to instantaneously cure or "dry" inks and other coatings. This technology offers many advantages over traditional drying methods; UV cured inks are normally resistant to physical and chemical attack, making them superior to technologies such as toner based chemistry.

The colour range currently includes cyan, magenta, yellow and black together with a high opacity white.

# Features & benefits

- Designed for a wide range of applications including labels and self adhesive decals
- Adhesion to a wide range of substrates including most grades of top coated PE, top coated PP, PVC and paper
- High strength pigmentation with wide colour gamut
- High opacity white for background printing and fine detail
- Compatible with typical finishing processes including die cutting, foil blocking and embossing
- Supplied in 11lb (5kg) recyclable 'bag in a box' containers

| Technical table | |
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| Ink type | Free radical UV curing inkjet ink incorporating 'Micro V' dispersion technology |
| Ink film thickness | Single colour ink fill thickness is typically 0.3-0.5 mil (8-12 microns) dependant on drop size |
| Ink density | Typical ink densities are:<br><br>Yellow 1.0 ± 0.07<br>Magenta 1.45 ± 0.10<br>Cyan 1.45 ± 0.10<br>Black 1.7 + 0.2-0.05 |
| Colour gamut | Inks are formulated to meet the GRACoL and ISO Coated V2 colour standards |
| Light fastness | Typical pigment light fastness is:<br><br>Yellow 6-7<br>Magenta 7-8<br>Cyan 8<br>Black 8<br>White 8 |
| Heavy metals | Graphium Ink RA is formulated free of heavy metals |
| Recycling | Graphium Ink RA is supplied in 11lb (5kg) recyclable 'bag in a box' containers |
| Substrates | Graphium Ink RA is formulated to adhere to most grades of top coated or corona treated filmic materials with surface tension levels of 38 dyne/cm or higher |

Contact one of our Graphium specialists to find out more. Email: **graphium@ffei.co.uk**

FFEI Creative Imaging Technology

The Cube, Maylands Avenue, Hemel Hempstead, Herts, HP2 7DF, UK
Tel: +44 (0)1442 213440 | email: marketing.comms@ffei.co.uk | Web: www.ffei.co.uk