

IcoDisc REG

Gloss Finish Line Screen Ink

Issue No. 008/2019

IcoDisc is the premium brand of UV curing inks, the range includes low shrinkage during cure, combined with excellent adhesion and resistance properties to provide maximum reliability and optimum colour consistency over long print runs.

REG have a variety of finishes on paper, boards, polycarbonate and PVC. It can be used on all print machines including multi-colour lines. It also offer unlimited screen stability, free from re-wetting and blocking problems.

REG is a solvent (VOC) free system which fully complies with the global air pollution controls and regulations.

General Information

REG inks should be stirred well before each use. Full adhesion properties may not develop until 24 hours after printing. Compatibility of combined ink systems must be evaluated under production conditions. **Always test application fully before beginning a production run, and the performance of REG should be confirmed prior to commencing a production run. See also section on 'Post Cure'.**

Curing Information

The curing information quoted for each product is typical for modern UV dryers. Actual curing rates depend on many of factors including ink film thickness, opacity, the number and type of lamps used (including lamp emission spectrum, power and efficiency) and the stock being printed. Care should be taken to ensure that each colour is cured correctly to achieve optimum adhesion to substrate and subsequent overprint. **White or colour matches containing White will be slower than other colours.**

Post Cure

The chemical reactions involved in curing UV Inks are not totally completed in the curing unit itself. While up to 90% of the chemical bonds needed to give adhesion etc, are completed, there is a post cure period when chemical bonds continue to be made.

Most post cure is achieved within 24 hours however may continue to cure for a few weeks. This is important to recognize as the UV cure process, and post curing, can cause shrinkage of the ink film, which puts stress on the material. In the case of self-adhesive PVC, the stress manifests itself as cracking or shattering (embrittlement) of the substrate.

It is therefore important to be cautious if your results immediately after curing are borderline for embrittlement as the additional post cure stress may cause more serious problems later on.

Care should be taken that prints are not over-cured and that adhesion of subsequent colours, as well as the first colour, is assessed at regular intervals.

Main Characteristics

Finish

Gloss

Mesh

No. 150.34PW is recommended for most print applications

Thinning

IcoDisc Inks are supplied press ready

Up to 5% **ZE637** can be added as necessary

Stencil Recommendation

Dirasol 916, Dirasol 917, Dirasol 902, Dirasol Supercoat

For more information please refer to the Iconinks website or contact your Iconinks representative

Coverage

No: 150.34 PW Mesh

Up to 80-100 m²/kg (85-105 m²/ltr)

Curing

Cured through a dryer with 2x80W/cm lamps

Up to 35 metres/minute (150.34 mesh)

Intermediate curing speed can be increased by the addition of up to 3% **ZE824**

Wash-up

ZTC639 Screen Wash Universal.

Co-use with other inks

IcoDisc Screen inks can be intermixed and printed over any other ink in the **IcoDisc** Screen ink range but must not be used in conjunction with any other ink.

IMPORTANT: Stir well before every use. Always test application fully before beginning production run as there is often considerable variance in substrates from different manufacturers and even between different batches.

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Pre-production Tests

Certain plastics may be impregnated with lubricants, which, like plasticiser migration, may impair adhesion even after a considerable time period after printing. This can usually be overcome by wiping the surface with a white spirit soaked cloth and drying off the solvent before printing. Surface adhesive left from protective papers on rigid PVC sheets should be thoroughly removed in line with supplier's instructions. Other plastics can become brittle when printed, possibly to the point of shattering, often after several weeks.

It is therefore essential to check compatibility between ink and plastic.

Co-use with Other Inks

REG and REM may be mixed together to achieve a wide range of intermediate finish levels may be achieved.

The Iconinks Matching System

The Iconinks system enables printers to readily match special colours. It consists of nine colours, each selected for cleanliness of tone and suitability for intermixing.

REG001 (black) and REG021 (white) are pigmented to achieve the ideal tinting and colour reducing power, and are therefore suitable for both colour matching and as printing colours.

REG16 Mixing Base is available for mixing into any of the standard REG colours when greater transparency or faster cure is desired. The use of Universal Tinters is not recommended with any IcoDisc ink.

Standard Colours

REG001	Black
REG009	Dense Black
REG021	White
REG064	Yellow (GS)
REG066	Yellow (RS)
REG114	Orange
REG121	Red (YS)
REG164	Red (BS)
REG165	Magenta
REG127	Violet
REG230	Blue
REG325	Green
REG16	Gloss Varnish / Extender Base
REG27	Gloss Opaque Varnish

Are available in 1 & 5 kg containers.

Additives

ZE637 Thinner
 ZE824 Flash cure additive
 Available in 5 and 1 ltr containers

PANTONE® Matching Systems

The REG range has pre-matched formulations for the colours in the coated ('C' suffixed) section of the PANTONE Colour Formula Guide. In addition REG has pre-matched formulations based on the IcoDisc

Storage

Containers should be tightly closed immediately after use. At the end of long printing runs surplus ink should be disposed of. IcoDisc inks are not classified as a 'dangerous substance' under the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR)

IcoDisc inks should not be stored in direct sunlight or near sources of heat and should be kept away from peroxides.

For maximum shelf-life, storage should be between 10°C and 25°C. Stored in a cool environment the inks have a shelf-life of approximately 12 months from the date of manufacture.

Safety and Handling

Comprehensive information on safety and handling is given in the MSDS for this product, available on request.

Environmental Information

- IcoDisc REG does not contain ozone-depleting chemicals as described in the Montreal Convention.
- This product is formulated free from aromatic hydrocarbons.
- This product is also free of any volatile solvent and has less impact on the environment, when compared with traditional solvent-based products.
- This product is formulated free from lead and other heavy metals and therefore should comply with EN71-3:2013 Toy Safety Standard and RoHS "Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment."

The information and recommendations contained in this Product Information sheet, as well as technical advice otherwise given by representatives of our Company, whether verbally or in writing, are based on our present knowledge and believed to be accurate. However, no guarantee regarding their accuracy is given as we cannot cover or anticipate every possible application of our products and because manufacturing methods, printing stocks and other materials vary. For the same reason our products are sold without warranty and on condition that users shall make their own tests to satisfy themselves that they will meet fully their particular requirements. Our policy of continuous product improvement might make some of the information contained in this Product Information sheet out of date and users are requested to ensure that they follow current recommendations.

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