

UVivid

UV Narrow Web Printing Inks

UVivid Rotary RN034 UV Curing Combination Screen White

Features

- Rotary Screen base coat white for combination label printing
- Specially formulated to offer additive free overprinting with UVivid Flexo JD inks
- Rheology optimised for all common rotary screen systems including Stork RSI and Gallus Screeny
- Adhesion to a wide range of commonly used substrates
- Excellent opacity
- High gloss finish

As the focus on design, image quality and growth of 'no label look' self-adhesives continues, printers are increasingly combining rotary screen and UV flexo to obtain the standard of print results required. However, the inherent incompatibilities between traditional UV rotary screen and UV flexo ink systems often lead to poor colour reproduction due to the lay down of UV flexo over the rotary screen.

Until now overprinting rotary screen with UV flexo has been an inexact science left in the hands of the printer to resolve and often requiring the introduction of additives into the UV Flexo inks to obtain a passable print result.

These issues have now been resolved with the introduction of UVivid Rotary RN034 Screen Combination White. Using the latest UV technology this leading edge product used in conjunction with the UVivid Flexo JD range of inks produces excellent additive free combination results.

Applications

UVivid RN034 UV Curing Combination Screen White is designed for the following applications:

Pressure sensitive vinyls and top coated and corona treated pressure sensitive polyesters, polyethylenes and OPP films.

UVivid Rotary RN034

Printing Recommendations

Silicone contamination is a major concern with this ink system, so good housekeeping is key to consistent performance. To ensure that the optimum print results are obtained it is important to follow the guidelines listed below (see also separate Hints and Tips information sheet on cleaning recommendations):

- 1) Ensure that the inks are stored between 10°C and 25°C (see section on storage).
- 2) Stir well before use.
- 3) Use clean screens; do not replace a standard screen white without thorough cleaning.
- 4) Reclaimed screens, squeegee blades and holders must be cleaned thoroughly to minimise the risk of silicone contamination. Rinse screens with fresh cleaning solvent after automatic cleaning program to wash off any residual silicone from the automatic wash out solution.
- 5) Ideally run UVivid Rotary RN034 Combination White without pumping to reduce risk of silicone contamination. Use a new syringe that does not have an O-ring which is lubricated with silicone based materials. To be sure rinse the syringe with solvent before use.
- 6) If it is unrealistic to run without the pump ensure that the full system is thoroughly cleaned and flushed with UVivid Rotary RN034 Combination White before printing.
- 7) RN034 flow improves as press speed is increased. Optimum speed is 50-60m/min.
- 8) Ensure the level of ink remains high in the screen to reduce the risk of air entrapment, which could potentially cause ink flow problems and pin-holing.
- 9) Ideally, run with the squeegee blade below centre level to increase the printed ink film weight. The only exception to this being on Gallus R160/R200 presses, where on the right hand bank of units, the blade should be lifted to increase film weight.

Screen Recommendations

| Screen | Print Speed | Lamp Power* |
|--|---------------|--|
| Stork RSI 305 13% Gallus Screeny KM | Up to 60m/min | 160w/cm (400w/inch) bulb 100% power |

*Based on prints from a Nilpeter FA2500 press

A finer mesh than those recommended above will put down a thinner ink film that may cause pin-holing.

Additives

| Product | Code | Application | Dosage | Pack sizes |
|---------------|-------|--------------|--------|------------|
| Fast Thinner | ZE813 | General use | 1-10% | 5kg |
| Cure Additive | ZE824 | Improve Cure | 0-2% | 1kg |

Curing

Excellent adhesion is attained immediately upon curing; however maximum adhesion, chemical and mar resistance will be obtained 24 hours after initial curing.

Wash-up

| Application | Product Reference | Product Code |
|----------------|-----------------------|--------------|
| Screen wash up | Screen Wash Universal | ZT639 |

Do not wash up with any UV thinners.

Pre-Production Test

UVivid Rotary RN034 Combination White is formulated to adhere to most major brand, top coated or corona treated, plastic materials with surface tension levels of 38 dyne/cm or higher. However, it is strongly recommended that all substrates and blocking foils be tested before use on a commercial run. Supposedly similar substrates can vary between manufacturers, and between batches from the same manufacturer. Certain plastics may be impregnated with lubricants which, like plasticiser migration, may impair adhesion and block resistance.

It is also recommended to thoroughly test for compatibility when overprinted, as ribbons, toners and pigments used by overprint technologies can vary.

The end-user must determine suitability of this product for the intended use prior to production.

Storage

Containers should be tightly closed immediately after use. At the end of long print runs, surplus ink from the screen should be disposed of. UVivid Rotary RN034 Combination White is outside the Petroleum (Flammable Liquids) Order 1971 and Liquefied Gasses Regulations 1972.

RN034 should not be stored in direct sunlight or near warm pipes and should be kept away from peroxides. In the interest of maximum shelf-life storage temperatures should be between 10°C and 25°C.

Inks and additives should not be stored in direct sunlight or extreme temperatures. Refer to Material Safety Data Sheet (MSDS) for materials and conditions to be avoided.

Shelf-life

When stored in a cool environment the inks are expected to have a shelf-life of approximately 12 months from the date of manufacture.

Pack Size

UVivid Rotary RN034 UV Curing Combination Screen White is available in a 5kg pack size.

FUJIFIM Sericol UK Limited

- Has certification to the International Environmental Standard, ISO 14001.
- Is committed to minimising the risk to users of our products, and also to minimising the impact of our activities on the environment, from formulation through to production and supply.
- Research & development team, work to an in house Health, Safety and Environmental policy, termed 'Design for Health, Safety and Environment', with the aim of proactively developing products with the least impact on health, safety and the environment.
- Regularly review and monitor our impacts and activities, setting objectives and targets as part of a continual improvement process.
- Is committed to reducing waste through better use of raw materials, energy, water, re-use and recycling.

Safety and Handling

UVivid Rotary RN034 Combination White:

- Has a flashpoint greater than 55°C and is therefore not classified as a "dangerous substance" under the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR).

Comprehensive information on the safety and handling of UVivid Rotary RN034 Combination White is given in the appropriate FUJIFILM Sericol Safety Data Sheet, available on request.

Environmental Information

UVivid Rotary RN034 Combination White:

- Does not contain ozone depleting chemicals as described in the Montreal Convention.
- Is formulated free from aromatic hydrocarbons.
- Is free of any volatile solvent and can therefore be considered to have less impact on the environment, when compared with solvent-based products.

UVivid Rotary RN034

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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FUJIFILM

FUJIFILM SERICOL UK LIMITED

Pysons Road Broadstairs Kent CT10 2LE United Kingdom

Tel: (01843) 866668 Fax: (01843) 872184



UK Sales Tel: (01992) 782619 Fax: (01992) 782602
Email: uksales@fujifilmsericol.com

Customer Service Centres Tel: 0845 084 89 89

Export Sales

Pysons Road Broadstairs Kent CT10 2LE United Kingdom
Tel: +44 (0)1843 866668 Fax: +44 (0)1843 872122
Email: exportsales@fujifilmsericol.com

www.fujifilmsericol.com