



## Uvispeed UV Curing Inks for Paper, Board & Plastics

**GLOSS UG – SATIN SA – MATT UM – POSTER AZ – CITYLITE VZ – MULTIFLASH UZ**

The Uvispeed series of inks has been developed for Display and PoP printers to provide maximum reliability and optimum colour consistency over long print runs. The Uvispeed series includes ink ranges with a variety of finishes on paper, boards and plastics and can be used on all print machines including multi-colour lines. Uvispeed inks offer unlimited screen stability, freedom from re-wetting and blocking problems plus atmospheric and workplace environment advantages.

### Uvispeed Product Ranges

#### Gloss UG

High Gloss line and trichromatic range for use on corrugated board for displays and packaging. Excellent finishing properties. PANTONE® Matching Formulae available. Also available are Gloss UX fluorescents.

#### Satin SA

Satin finish trichromatic ink for general purpose printing of indoor PoP/display items on Paper, Board and PVC. Excellent finishing properties.

#### Matt UM

Matt finish line ink for paper, board, PVC and polycarbonate substrates. Fully intermixable with Gloss UG to obtain intermediate finishes. Colours, comprising the Seritone Matching System.

#### Poster AZ – Flash Cure (Patent Pending)

A matt finish 4-colour halftone set for the production of multisheet posters. Excellent pasting properties with posters developing 'Positive Edge Tension' during soaking/pasting – ensuring they stay in place on billboard sites. Excellent flexibility and intercoat adhesion, suitable for most poster papers. Washes up with water.

#### Citylite VZ – Flash Cure

A satin finish 4 colour halftone set for the production of back illuminated 'city' posters typically used in bus/train stops or for indoor displays. Citylite VZ colours utilise special high strength pigments to produce rich colours under backlit conditions.

#### Multiflash UZ – Flash Cure

Satin finish, line and trichromatic ink for printing heavy weight papers, board and PVC's on multicolour in-line machines. Has good print definition and can be flash cured. The colour range comprises the Seritone Matching System and a trichromatic set. PANTONE® Matching Formulae available. Adhesion to gloss PVC can be improved by the addition of up to 10% ZE818. UZ colours have 2 year outdoor life. See section 'Outdoor Use'

### Co-use with Other Inks

**Gloss UG, Satin SA and Matt UM** may be mixed together. In this way a wide range of intermediate finish levels may be achieved. **Please note, mixing Gloss UG with Satin SA or Matt UM will reduce adhesion to PVC.** They can also be used to over or under print each other. Can also overprint fully cured prints of Colorstar CS, MattPlast MG, Matt Vinyl MV and Plastijet XG and be overprinted by these.

**Poster AZ** must not be overprinted with solvent-based inks. Other UV inks may be used, but billboard paste acceptance will be compromised.

**Multiflash UZ** must not be mixed with other inks. May be printed over fully dried prints of Gloss UG and the Aquaspeed series. Multiflash UZ may be overprinted with Uvispeed Gloss UG.

Uvibond UV Curing Varnishes are recommended when over varnishing these inks, UV383 for PVC or UV391 for Paper and Board.

### Main Characteristics

#### Curing

When printed through No.150.34 PW mesh and cured through dryer with 2 x 80 watt/cm lamps.

**Gloss UG** = 30-40 metres/min.

**Satin SA** = 30-40metres/min.

**Matt UM** = 35-45 metres/min.

**Poster AZ** = 30-40 metres/min.

**Multiflash UZ** = 30-40 metres/min.

**Citylite VZ** = 30-40 metres/min.

Poster AZ, Citylite VZ and Multiflash UZ are designed to be flash cured between colours followed by full cure. For further details, see section 'Curing Information'.

#### Thinning

**Gloss UG**, up to 10% ZE807.

To increase cure speed, add up to 5% ZE813. On rigid PVC add up to 10% ZE817 to increase cure speed or adhesion. To improve fine definition add up to 10% ZE808.

**Matt UM**, up to 10% ZE637. To increase cure speed on rigid PVC, add up to 10% ZE807. Adhesion may be improved by adding 10% ZE818. Increasing cure speed may raise finish.

**Multiflash UZ, Poster AZ, Satin SA and Citylite VZ**, up to 10% ZE637. Up to 5% ZE813 to increase cure speed. Up to 10% ZE807 in Satin SA will improve adhesion to PVC.

#### Wash-up

Screen Wash Universal. Screen Cleaner AM or SW are recommended for automatic screen cleaning machines. Water can be used for Poster AZ only.

#### Mesh

No. 150.34 PW is recommended for general use. 120-140 PW for Gloss UX fluorescents. If coarser meshes are used, excessive material curl could occur and cure-speed may decrease.

#### Stencil Type

Solvent resistant.

#### Recommended:

Contact exposure, Dirasol 916, Dirasol 917, Dirasol Super Coat.

15 micron capillary film,

Direct projection, Dirasol SW10, S10, H10 or Dirasol SuperPro.

**Coverage** m<sup>2</sup>/kg 150.34 PW mesh

**Gloss UG**, 80-100. **Gloss UX fluorescents**, 55-65.

**Satin SA**, 85-95. **Matt UM**, 60. **Poster AZ**, 75-85.

**Multiflash UZ**, 75-85. **Citylite VZ**, 75-85.

#### Ink Coverage

The coverage figure shown for each product is for a single colour print. Higher pigmented colours such as white and colour matches containing a high proportion of white will not yield the same coverage.

#### IMPORTANT

**Stir well before every use. Compatibility of substrates and combined systems must be evaluated under actual production conditions before commencing a print run**

\*PANTONE® is the property of Pantone, Inc.

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## Curing Information

The curing information quoted for each product is typical for modern UV dryers. Actual curing rates depend on a number 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 adhesion. **White or colour matches containing White will be slower than Seritone base colours. UG009 Dense Black is slower than other Gloss UG colours.**

Poster AZ, Citylite VZ and Multiflash UZ can be conventionally or flash cured. **Multiflash UZ001 Black is not a flash cure ink. Colours containing more than 30% UZ001 will not flash cure and therefore require continuous UV curing equipment.**

Solvent-based ink prints must be fully dried prior to overprinting with UV curing inks. In some cases this may take up to 24 hours.

### Post Curing:

The chemical reaction initiated by a UV dryer will continue for 24 hours or more after the prints have emerged. This reaction can adversely affect intercoat adhesion and flexibility. 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.

## Pre-Production Tests

Certain plastics may be impregnated with lubricants which, like plasticiser migration, may impair adhesion even a considerable period after printing. This can usually be overcome by wiping the surface with white spirit before printing.

Surface adhesive left from protective papers on rigid PVC sheets should be thoroughly removed in line with suppliers' instructions.

**Some plastics can become brittle when printed, possibly to the point of shattering, often after several weeks. It is essential to check compatibility between ink and plastic to guard against this.**

## Flexibility

Uvispeed Gloss UG, Satin SA and Multiflash UZ inks will meet the rigorous demands of the display market for flexibility. On suitable materials, several layers can be guillotined without cracking or flaking.

## Gloss Level Control

### Gloss UG and Satin SA

Gloss level may be reduced by addition of ZE816 UV Matting Base. Where high levels of addition are required, it is recommended that Gloss UG is mixed with Matt UM to maintain colour strength. Gloss UG Satin SA and Matt UM may be mixed in any proportion without loss of printing properties.

### Multiflash UZ

UZ384 matting base can be added to the colours from the UZ range to control finish.

## Outdoor Use

Ink ranges in the Uvispeed Series have been tested for resistance to weathering in an Atlas xenon bulb weatherometer. Figures given are maximum expected outdoor life when printed on superior grade self adhesive PVC and exposed in zone 1 as defined in the Sericol 'Weathering' information sheet available at [www.sericol.com](http://www.sericol.com).

**Gloss UG/UX** UG - 12 months. UX fluorescents - up to 3 months.

**Satin SA** 3 months.

**Matt UM** 12 months. *Exceptions: UM164 - 3 months, UM021 - 6 months.*

**Poster AZ** 3 months.

**Citylite VZ** 3 months.

**Multiflash UZ** Line & Trichs - 24 months. *Exceptions: UZ064/114/121/164 have approximately 8-12 months outdoor life. Use the EL alternative shades where 24 month outdoor life is required.*

Colours listed as exceptions have reduced lightfastness and should not be used for prolonged outdoor exposure or in colour matches requiring outdoor resistance.

For more comprehensive details on weathering please contact Sericol Technical Services.

## The Seritone Matching System

The Seritone Matching System enables readily matched special colours. The system comprises base colours plus Black, White and Extender Base.

## PANTONE® Matching System

Sericol provide formulae for the coated ('C' suffixed) section in Gloss UG and Multiflash XZ ranges.

The Sericol package includes:

1 **PANTONE® Color Formula Guide**

2 **Sericol Formula Guide**

Formulations given in percentages by weight.

3 **Color Manager Software**

For use with IBM compatible computers. This package enables use of the PANTONE formulations plus:

- Storage facility for user's own formulations.
- Automatic batch sizing and costing.
- Ink coverage estimator.
- Stock control system to calculate the amount of stock and a reminder when stocks fall below a given (programmable) level.

4 **PANTONE Formula Scales**

Pre-programmed with PANTONE shades to ensure maximum accuracy, speed and cost savings.

## Metallic Colours

Metallics can be made by mixing Metallic Ink Medium with Gold and Silver powders as follows:

|       |                                 |                    |
|-------|---------------------------------|--------------------|
| MP461 | Rich Pale Gold Powder Superfine | 20 parts by weight |
| UU382 | Metallic Ink Medium             | 80 parts by weight |
| MP483 | Silver Powder Superfine         | 15 parts by weight |
| UU382 | Metallic Ink Medium             | 85 parts by weight |

These mixtures should be used within 8 hours. Metallics may be tinted, if required, by 5-10% additions of CU concentrates.

**See also Product Information sheet 'Special UV inks and Additives' for details on UU475 Metallic Silver, UU461 Metallic Gold and UU382 Metallic Ink Medium.**

## Reducers and Additives

|       |   |
|-------|---|
| ZE637 | Thinner for UM, AZ, UZ, VZ, UX fluorescents |
| ZE807 | Thinner for UG, UM                          |
| ZE813 | Fast Thinner for UG, UM, UZ, VZ             |
| ZE817 | Adhesion Promoter for UG                    |
| ZE808 | Gel Additive for UG,                        |
| ZE816 | Matting Base for UG                         |
| ZE818 | UZ Adhesion Promoter                        |

Available in 5 and 1 ltr containers.

**See also the Product Information sheet 'Special UV inks and Additives' for details of other products which can be used to modify UV inks.**

# Uvispeed UV Curing Inks for Paper, Board & Plastics

## Standard Colours

|                                       | Gloss UG | Gloss UX | Satin SA | Matt UM | Poster AZ | Citylite VZ | Multiflash UZ |
|---------------------------------------|----------|----------|----------|---------|-----------|-------------|---------------|
| Black                                 | UG001    | -        | -        | UM001   | -         | -           | UZ001         |
| Dense Black                           | UG009    | -        | -        | -       | -         | -           | -             |
| White                                 | UG021    | -        | -        | UM021   | -         | -           | UZ021         |
| Seritone Yellow (Green Shade)         | UG064    | -        | -        | UM064   | -         | -           | UZ064         |
| Seritone Yellow (Red Shade)           | UG066    | -        | -        | UM066   | -         | -           | UZ066         |
| Seritone Orange                       | UG114    | -        | -        | UM114   | -         | -           | UZ114         |
| Vermilion/Seritone Red (Yellow Shade) | UG121    | -        | -        | UM121   | -         | -           | -             |
| Seritone Red (Yellow Shade)           | -        | -        | -        | -       | -         | -           | UZ121         |
| Seritone Red (Blue Shade)             | UG164    | -        | -        | UM164   | -         | -           | UZ164         |
| Seritone Magenta                      | UG165    | -        | -        | UM165   | -         | -           | UZ165         |
| Deep Violet/Seritone Violet           | UG127    | -        | -        | UM127   | -         | -           | -             |
| Seritone Violet                       | -        | -        | -        | -       | -         | -           | UZ127         |
| Seritone Blue                         | UG230    | -        | -        | UM230   | -         | -           | UZ230         |
| Seritone Green                        | UG325    | -        | -        | UM325   | -         | -           | UZ325         |
| Extender Base                         | UG381    | -        | -        | UM381   | -         | -           | UZ381         |
| Trichromatic Yellow                   | UG052    | -        | SA052    | -       | AZ052†    | VZ052       | UZ052         |
| Trichromatic Magenta                  | UG135    | -        | SA135    | -       | AZ135†    | VZ135       | UZ135         |
| Trichromatic Cyan                     | UG215    | -        | SA215    | -       | AZ215†    | VZ215       | UZ215         |
| Trichromatic Black                    | UG004    | -        | SA004    | -       | AZ004†    | VZ004       | UZ004         |
| Trichromatic Extender Base            | UG396    | -        | SA396    | -       | AZ396     | VZ396       | UZ396         |
| Fluorescent Yellow L                  | -        | UX053    | -        | -       | -         | -           | -             |
| Fluorescent Orange M                  | -        | UX105    | -        | -       | -         | -           | -             |
| Fluorescent Red M                     | -        | UX137    | -        | -       | -         | -           | -             |
| Fluorescent Magenta M                 | -        | UX139    | -        | -       | -         | -           | -             |
| EL Yellow GS                          | -        | -        | -        | -       | -         | -           | UZ073         |
| EL Orange                             | -        | -        | -        | -       | -         | -           | UZ118         |
| EL Red YS                             | -        | -        | -        | -       | -         | -           | UZ177         |
| EL Red BS                             | -        | -        | -        | -       | -         | -           | UZ178         |

### Available pack sizes

| Trich - 5 & 15 kg | 5 kg | 10kg | 5 kg | 10 & 200 kg | 10kg | 5 & 200 kg |
|-------------------|------|------|------|-------------|------|------------|
| Line - 5 kg       |      |      |      |             |      |            |

Extender Base is available for each ink type, it can be mixed into any standard colour where greater transparency or faster drying speed is desired.  
 †Trichromatic Colours to DIN 16538/9 (BS4160/4666)

## Post Print Mesh Cleaning

Ink stains can be removed after decoating by using SeriGel Clear (OAA03) and Antistain (AND50) as follows:

Apply SeriGel Clear to both sides of the mesh followed by Antistain. Allow to stand for 30 minutes then wash off using a high pressure water gun.

This blend of chemicals is suitable for manual application and dwell time can be extended without any detrimental effect to mesh life.

## Storage

Containers should be tightly closed immediately after use. At the end of long printing runs surplus ink from the screen should be disposed of. Uvispeed inks and reducers should not be stored in direct sunlight or near warm pipes 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.

## Special Matches

Colours can be supplied against prints, wet ink samples or to PANTONE®, British Standard, 'HKS' or 'Munsell references'. A sample of the substrate and the number and type of mesh to be used, should be attached to orders. Other properties required of special matches may be very important and full details should be supplied of the process to be followed.

Our Technical Service Department will be pleased to advise on non-standard colours.

Minimum quantity 5 kgs.

## Fujifilm 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

Uvispeed Inks:

- are formulated to be free from any chemicals toxic to health, carcinogenic, mutagenic or reprotoxic according to Directive 67/548/EC.
- have a flashpoint greater than 55°C and are therefore not classified as a 'dangerous substance' under the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR).

Comprehensive information on the safety and handling of Uvispeed screen inks and reducers is given in the appropriate Sericol Safety Data Sheets, available on request.

## Environmental Information

Uvispeed Inks:

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

Poster AZ Inks:

- readily wash-up with water to reduce solvent usage.

*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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More than ink...Solutions.

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