

UvXtra VW Part of the Uviplast Series Line & pro-file Trichromatic Screen Inks

PRODUCT INFORMATION

UvXtra VW is a 100% UV screen ink designed for printing display POP items onto paper, board, PVC, treated polypropylene & some polystyrene. UvXtra VW is formulated to be free of n-vinyl caprolactam (NVC), Isopropyl thioxanthone (ITX) and Benzophenone (BP).

Product Properties

- Adhesion to paper, board, PVC, PETG, treated polypropylene and some polystyrene
- Gloss finish
- Suitable for flatbed, cylinder and multicolour machines with fixed or scanning UV
- Excellent print definition
- Press ready formulation for large format printers
- Good finishing properties – cutting, creasing, folding
- 3 year outdoor life

pro-file Trichromatics

UvXtra VW Pro-file trichromatics are designed to enable easier matching of prints to the ISO 12647-2 colour standard. However the variables of the screen printing process mean that achieving the specific L*a*b* values of a defined standard will not always be possible, and a printer should fully test and fingerprint the entire process in order to gain the best result possible.

UvXtra VW trichromatics are suitable for conventional, continuous UV curing equipment and low output continuous UV.

General Information

UvXtra inks should be stirred thoroughly before each use. Always test application fully before beginning production run, as there is often considerable variance in substrates from different manufacturers. See also section on 'Post Curing'.

Please Note: UvXtra VW is not recommended for the following applications:

1. Thin gauge SAV for bus side application (UvXtra VW is not accredited on the CBS rate card). The recommended product for this application is Multiflash UZ.
2. Fluted polypropylene which is to be handled under wet conditions (e.g. estate agent boards).

Main characteristics

Finish

Gloss

Curing

UvXtra VW and VWP are not recommended for flash curing equipment. Cure through a dryer with 2 x 80 watt/cm lamps @ 25-30 metres per minute with a 150.34 PW mesh.

Thinning

Up to 5% ZE637

Wash-up

Screen Wash Universal. Do not wash-up with any UV Thinners. Serisolve AM, SW, AQ+ or AQ Ultimate are recommended for automatic screen cleaning machines.

Mesh

No. 140.34 to 180.31 PW

No. 150.34 is recommended for most print applications.

Stencil Recommendation

Contact exposure: Dirasol Zenith, Dirasol 916, Dirasol 917, Dirasol Super Coat, Indirect or capillary films

Direct projection: Dirasol SuperPro, Dirasol S5, Dirasol S10

Direct light exposure: Dirasol CTS

Coverage & Mesh

Trichromatic Inks: Up to 95m²/kg (104m²/ltr) through 150.34 PW mesh.

Line Colours: 85m²/kg (93m²/ltr) through 150.34 PW mesh.

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

3. Electrostatic self-cling materials (for window stickers) are extremely variable in their performance, where different batches and even the same batches printed on different days can have marked differences in performance. For this reason Multiflash UZ is recommended as it is a more robust ink system. In all cases, the ink and substrate must be tested fully prior to production.

pro-file Trichromatic Colour Ranges

VWP15 Cyan
VWP35 Magenta
VWP52 Yellow
VWP04 Black
VWP96 Extender Base

Available in 5kg units.

Standard Line Colour Range

VW001 Black
VW021 White
VW064 Seritone Yellow GS
VW066 Seritone Yellow RS
VW114 Seritone Orange
VW121 Seritone Red YS
VW127 Seritone Violet
VW164 Seritone Red BS
VW165 Seritone Magenta
VW230 Seritone Blue
VW325 Seritone Green
VW381 Extender Base

Available in 5kg units.

GS = Green Shade YS = Yellow Shade
RS = Red Shade BS = Blue Shade

Additives

ZE637 – Standard Thinner

Available in 5ltr units.

ZE832 – UvXtra Adhesion Promoter

Available in 1ltr units.

Pre-Production Tests

Plastics:

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.

Polypropylene:

UvXtra VW has been developed for use on commonly used sheet and fluted polypropylene materials. Polypropylene is corona discharge treated during manufacture and the efficiency of this treatment decreases with age. It is recommended to always use fresh stock. Any contamination of the surface (e.g. finger marks) will impair adhesion.

UvXtra VW is not recommended for printing on Polypropylene for outdoor applications where water resistance is required. To improve water resistance of VW inks the addition of ZE832 UvXtra Adhesion Promoter is recommended.

ZE832 - UvXtra Adhesion Promoter

ZE832 UvXtra Adhesion Promoter gives much improved adhesion and water resistance to cured UV inks with increased pot life. Once ZE832 is added, the ink will stay catalysed for up to 4 days, after which time the properties gained from the addition of ZE832 will diminish. After this time, any remaining ink can still be used but will only retain the original performance of the uncatalysed ink.

ZE832 UvXtra Adhesion Promoter is isocyanate-free. Should only be added up to 3% to previous uncatalysed UvXtra VW.

Please Note - Ink with catalyst could show a slightly higher gloss level than ink without catalyst.

Post Curing

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. Until recently it was believed that post cure was completed within 24 hours. Study has shown that although much of the post cure activity does take place within 24 hours it is now thought the total post cure period can last for a few weeks.

This is important to recognise as the UV cure process, and post curing, can cause shrinkage of the ink film, that 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.

Outdoor Use

UvXtra VW inks have been tested for resistance to weathering in a Q-Sun Xenon Weatherometer. When printed full strength on an exterior grade self-adhesive vinyl and exposed in Zone 1, as defined in the 'Printers Guide to Weathering' Information Sheet, UvXtra VW inks will have a three year outdoor life.

Storage

Store in a cool, dry place in tightly sealed containers. UvXtra VW Inks should not be stored in direct sunlight or near heat sources and should be kept away from peroxides. For optimum shelf life, all products should be stored at moderate temperatures between 5°C and 30°C. Storage outside of these temperatures may lead to deterioration in the performance of the product.

When stored at optimum storage conditions UvXtra VW inks are expected to have a shelf life of approximately 12 months from the date of manufacture.

Fujifilm Speciality Ink Systems Limited:

- Has certification to the International Environmental Standard, ISO 14001.
- Has certification to the Quality Management Standard, ISO 9001.

- Has certification to the Occupational Health and Safety Standard, OHSAS 18001.
- 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 and 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

UvXtra VW Inks:

- Have a flashpoint greater than 60°C and are therefore not classified as "dangerous substance" under the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR).
- Is formulated free of n-vinyl caprolactam (NVC) in accordance with the European Printing Ink Association (EuPIA) voluntary 'Exclusion List for Printing Inks and Related Products.'

Comprehensive information on the safety and handling of UvXtra VW inks, solvents and associated products is given in the appropriate Safety Data Sheets.

Environmental Information

UvXtra VW Inks:

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

The information and recommendations contained in this Product Information sheet, as well as technical advice otherwise given by representatives of Fujifilm Speciality Ink Systems Limited and its associated companies, 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.

FUJIFILM SPECIALITY INK SYSTEMS LIMITED

Pysons Road, Broadstairs
 Kent CT10 2LE
 United Kingdom
 T: +44 (0)1843 866668
 F: +44 (0)1843 872184
 www.fujifilm.eu

