

Textile Screen

Inks

Water Based Seritrans TA

Water based Seritrans TA Inks are designed for producing Transfers and Direct printing to decorate a variety of natural and synthetic fabrics.

Features

- Suitable for Direct and Transfer Printing
- Formulated free from PVC and Phthalate
- Tributyl Tin (TBT), Dibutyl tin (DBT), AZO and heavy metal within restrictions.
- Good Screen Stability.
- Good Wash fastness.
- Excellent Screen stability.
- Soft handle, non bleeding
- Good resistance against dry and wet friction.
- Excellent wash and Rub resistance.
- Opaque Standard shades for printing on dark colour fabric.

TEST INKS ON SUBSTRATES
BEFORE PRODUCTION RUN

SERICOL
More than ink... Solutions.
FUJIFILM

Thinning & Washing

Supplied press-ready if necessary, thin up to 5% water (distilled or DM water).

Hot shop conditions: use up to 3% TA-591.

Wash up with water, dried ink may be washed out with universal screen wash SS 639.

Mesh

TA-021 white: Monofilament 34-43/cm

TA Standard Opaque/Metallic colours: Monofilament 43-55/cm.

Stencil Type

Should be water resistant.

Recommend: Dirasol 25, Supertex or 916. For optimum stencil life, each can be treated with Sericure Stencil Waterproofing Agent.

Fabrics

Cotton, Cotton polyester blends and some synthetic fabrics.

Applications

Most knitted and woven fabrics typically used for T-shirts, Sweat Shirts, Sports and Fashion Wear, Badges, Hats and Caps, Travel Bags, Footwear.

IMPORTANT:

Stir well before every use. Users should satisfy themselves that Seritrans TA is compatible with specific textiles and that rub, stretchability and other resistance properties are acceptable before commencing production runs.

SPECIAL NOTE:

It is essential that all the jobs are proofed prior to production to ensure wash fastness properties are acceptable.

Direct Printing:

No of Print Strokes

For Standard colours

The number of strokes for manual printing or machine printing will be decided based on the type of fabric colour and print design requirement, 4+4 strokes are recommended on to the dark fabric to achieve good print.

In case of machine printing, Extender base TA-381 (for light fabrics) opaque base - or TA-021 (Dark Fabric) can be used as a ground coat base to reduce the number of strokes of colours. Preferably 2+2 strokes are recommended to achieve good print quality.

The higher the ink deposit better the print appearance, good resistance to wash and also improves the fabric stretch without print breakage. It is recommended to use TA-381 or TA-021 as a ground base with 2 to 4 strokes to achieve excellent wash resistance.

Flash cure is required for printing after base first colour and before last colour. The flash cure requirement is decided as per the type of design. Before Printing Pallets have to be heated.

Flash curing

The temperature must reach 120°C to 130°C on fabric and under optimum conditions; dwell times of less than 6 seconds can be readily achieved. However the ink should be touch dry after flash station and time and temperature must be adjusted accordingly. Many factors affect the dwell time required for flash curing. These include the type and wavelength of the equipment used and the distance between the curing unit and the print. Additional factors such as fabric and ink colour, film weight and coverage are also crucial.

Optimum Flash Time & Temperature can be adjusted as per the job requirement.

Curing Information:

It is essential that the entire thickness of the ink film has time to reach the full cure temperature of 150°C to 160°C (on fabric) for 1.5 to 3 minutes. or resistance properties, such as wash & rub fastness, will not be achieved.

Evaluate your cure schedule by testing the print at the wash schedule that it will ultimately be expected to pass. It is recommended that cure temperature is confirmed with the use of thermal testing strips.

Factors such as ink film thickness and colour, drying equipment and fabric all influences the cure schedule needed. In most cases the oven temperature will need to be set higher than 170°C for the ink to reach full cure in a time of 1.5 to 3 minutes so that during continuous production run the cure temperature minimum 160°C will reach on the garment and the print should be allowed to be cured for 1.5 to 3 minutes.

Fusing

Temperature at 160°C to 170°C for 5 to 7 seconds with optimum pressure. Use TRB 08 or TRB 28 transfer paper only.

Fastness

Seritrans TA has good wash fastness to ISO Test No's 1 (40 °C), 2 (50 °C) and 3 (60 °C) Prints may be ironed from the back of the fabric at a cool setting, with a cloth over the printed area. Prints will not resist dry-cleaning and garments should be marked to this effect.

Fibrillation

Fibrillation occurs when fibres from the garment break through the ink film during a wash cycle to give a faded appearance. While fibrillation has the look of poor wash fastness it is not caused by the loss of ink; it occurs even with fully cured prints. There are several methods like below to minimise fibrillation.

- 1) Increased ink film weight
- 2) Use of TA-381 as a base coat.
- 3) Use of TA-021 white as a base coat.

As demand for low handle/low film weight prints increases, so does the likelihood of fibrillation. The complex relationship of ink, print and fabric reinforces the need to wash test-prints to customer requirements prior to production.

Transfer Printing:

Drying

Prints must be dried thoroughly between coats at a minimum temperature of 100 degrees for 45 seconds.

Thinning

TA Colours and white: Upto 5 % TA-591 Retarder
TA-458: Upto 5% TA-591 Retarder

Fusing

Temperature at 160°C to 170°C for 5 to 7 seconds with optimum pressure. Use TRB 08 or TRB 28 transfer paper only.

Transfer conditions

Typical conditions are 160°C - 190°C at 40- 60 psi for 10 - 15 seconds.

Adhesive

TA-458 is the adhesive to be used with TA inks. Optimum performance is obtained if this is printed unthinned. However in Hot shop conditions upto 5% TA-591 can be added. It is important that this amount is not exceeded or adhesion of the finished transfer may be impaired.

Transfer Substrate

The use of PET film designed for textile transfer production is strongly recommended. Suitable coated papers such as TRB 20 T105 Transfer Paper may also be used, but care should be taken to avoid cockling and loss of register that can be caused by water absorption into the stock.

Fastness

When printed and applied to appropriate fabrics according to our recommendations, transfers produced using Water Based TA inks and TA-458 adhesive may be expected to have good wash fastness.

Note: High street stores and garment/sportswear manufacturers will generally have their own levels for acceptable rub fastness. Printers must carry out their own tests to satisfy themselves that the rub levels will meet fully with their end users requirements.

Screen Stability

For a water- based ink, Seritrans TA has good screen stability. However, to avoid ink drying on screen, which is due to heat generated during long print run it is always advised to keep screen flooded with ink or wet the screen with water..

Colour Matches

It should be noted that the combination of high wash temperatures and strong detergents can cause colour changes in some colour matches, particularly when very small additions of a base colour are added. For example, pastel shades can change colour as the trace additions of base colours are affected in harsh wash cycles. For this reason, it is essential that all formulations are proofed prior to production to ensure wash fastness properties are acceptable.

Squeegee

Squeegee requirements will vary according to each design. To get the best results from Seritrans TA, we recommend triple durometer squeegees, as they are able to shear the ink more effectively than conventional squeegees. For the AT-021 white we recommend a 75/95/75 green squeegee, as this will provide a good base white to print on. For the colours use 65/95/65 squeegee or 75/95/75 dependant on the level of detail required.

Important: The Seritrans TA range has been developed free from PVC/Phthalates.

However in addition users must be aware of potential sources of contamination such as squeegees, flood coaters, screens and curing equipment, which may all contribute trace amounts of phthalate and PVC from previous use with other plastisols.

Storage Stability

The combination of raw materials used in Seritrans TA is not as stable or tolerant of elevated temperatures (>40°C) during long transportation over sea, long storage. The ink may appear thick over time (often referred to as a false gel) this false gel can normally be broken down by hand mixing with spatula for 5 minutes.

Inks that have been used on press in very hot conditions, such as multiple flash cure prints, should not be returned to the container containing fresh ink.

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Avoid prolonged mechanical shaking as it can generate high levels of heat.

Colour Range

Seritone & Line Colours

TA-001	Black
TA-021	White
TA-042	Seritone Yellow (Green Shade)
TA-043	Seritone Yellow (Red Shade)
TA-101	Light Orange
TA-162	Seritone Orange
TA-134	Seritone Red (Yellow Shade)
TA-124	Seritone Red (Blue Shade)
TA-203	Seritone Blue
TA-206	Seritone Blue (Red Shade)
TA-166	Seritone Violet
TA-285	Seritone Green
TA-165	Seritone Magenta
TA-381	Extender Base

Thinner/Reducers

TA-591 Seritrans TA Thinner
Available in 1 kg containers.

Ancillary Products

During printing, fabrics have to be held on the table by means of a pressure sensitive adhesive to obtain good definition of print. Flash Fix and T-Fix Spray Adhesives are recommended for this purpose. (See relevant product information sheets).

Storage

1. Keep inks cool place, away from direct sunlight.
2. Keep lids tightly closed when not in use
3. Any unused ink should not be returned to the can, must be stored separately.
5. Stir well before use.

Safety and Handling

Seritrans TA:

- Is formulated free from phthalate plasticisers and PVC.
- Is formulated to be free from any chemicals toxic to health, carcinogenic, mutagenic or reprotoxic.
- Is formulated free from lead and other heavy metals.
- Should be stored in below 40°C in a sealed container.

Environmental Information

Seritrans TA:

- Does not contain ozone-depleting chemicals as described in the Montreal Convention.
- Is formulated free from aromatic hydrocarbons, which are known to have an adverse effect on the environment.
- Is free of any volatile solvent and is therefore beneficial to the environment when compared to solvent-based products.

Fujifilm Sericol appreciates the importance of protecting printers and brand names, particularly in the light of ongoing attention from environmental lobby groups such as Green peace, as a result we offer Global Brands an Assurance programme to provide maximum support. Some simple guidelines need to be adhered to without compromise:

To avoid PVC and Phthalate contamination, end user must ensure the following:

- Use of Spatulas, Screens, containers, squeezes must be identified and not to be used for PVC/Phthalate inks.
- Printers Hand gloves or hands must be clean and free from PVC/Phthalate inks.
- Do not store TA inks in the same place of Plastisol inks which are based on PVC/Phthalate inks.
- Ideally Print area for TA inks must be in different location than plastisol printing.
- Do not mix TA inks printed garments/Fabrics with plastisol prints.
- Do not use emulsions other than Fujifilm Sericol recommended for screen making.
- Use only Fujifilm Sericol recommended transfer paper for fusing. Use only Fujifilm Sericol recommended Flash Fix.

Important Note to Printers:

Responsibility for ensuring that the goods processed with our product meet the requirements of labels/brands/agencies/ rests solely with the processors.

Important Note:

The information and recommendations contained in this product information sheet as well as technical advice otherwise given by representative of our company, whether verbally or in writing, are based on our present knowledge and experience. Such information/ technical advice is given in good faith, but without warranty, in view of the many factors that may affect processes or applications 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 the products will meet fully the particular requirements of the labels/ brands/ agencies of their clients and also that no proprietary rights and existing laws and legislation are violated.

Our advice does not relieve processors from the responsibility of carrying out their own tests and experiments, nor does it imply any legally binding assurance in respect of properties or suitability for a specific purpose or of the legal status of the listed products.

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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