



Product Information

Autotype Indirect Photostencil Films

FIVE STAR • GREENSTAR • ALPHA STAR • NOVAPLUS

Indirect Photostencil Films are perfect for short to medium run high quality work, where their quick processing times enable fast production. They are resistant to solvent based and conventional UV curing inks. Indirect films are processed separately from the screen and are suitable for a wide range of mesh counts.

Properties

Five Star

Red pre-sensitised gelatine coating on a 50 micron polyester base. Medium/high resolution, exceptional print quality and wide processing latitude make Five Star perfect for most general purpose applications.

Greenstar

Green pre-sensitised gelatine coating on a 50 micron polyester base. Low resolution and high definition make Greenstar perfect for multilayer or composite positives where the tape edges can be burnt out.

Alpha Star

Blue pre-sensitised gelatine coating on a 50 micron polyester base. Ultra high resolution and print quality make Alpha Star perfect for very fine line or halftone work.

Novaplus

Unique, red, pre-sensitised coating on 70 micron polyester base requiring no chemical hardening. Quick and simple chemical free processing with cold or warm water washout.

Instructions for Use Handling

Unroll film on a flat surface and cut to the required size taking care not to kink or crease it. The films are sensitive to strong blue and artificial light but can be handled for short periods in subdued light. For complete safety, yellow fluorescent tubes should be fitted in the workroom. Always return unused film to the container and replace cap immediately after use as the sensitivity of the product can be affected by excessive exposure to humid conditions.

Positives

The quality of the stencil will depend on the positive. It should be free from stains, specks or pinholes and the image areas should have sharp edges and be opaque to ultra-violet light. Dust on the surface is a common problem: wiping with an anti-static cloth prior to exposure is good practice.

Exposing

Lay the positive on the glass of a vacuum exposure frame, with the correct reading image uppermost. Place the photostencil film with uncoated side in contact with the positive.

The following table is intended as a guide only because light sources vary according to their age and manufacture.

Exposure Guide (in seconds, at 120 cm lamp distance)

	Five Star	Greenstar	Alpha Star	Novaplus
1000W Metal Halide	360	480	440	180
2000W Metal Halide	300	400	360	125
3000W Metal Halide	240	300	270	75
5000W Metal Halide	180	240	220	60
6000W Metal Halide	150	200	180	

N.B. Excessive over exposure may result in poor adhesion to the mesh and under exposure may produce weak stencils.

Autotype Exposure Calculator

This invaluable aid has been designed to accurately determine the optimum exposure time for any photostencil material. Its use is recommended particularly with a new stencil material, a new light source or whenever the unsatisfactory performance of a stencil material could be caused by incorrect exposure.

Hardening

All indirect films (except Novaplus which requires no hardening): Prepare a solution of Autotype Powder Activator according to the instructions on the pack. Using Powder Activator produces extremely robust stencils which will withstand vigorous spraying during warm water development. Immerse the film, immediately after exposure, in a dish of the solution for one minute at room temperature. Any discolouration of the hardening solution at this stage is due to the removal of the top protective layer of the emulsion coating and does not impair the performance of the film or hardening solution. The hardener solution can be used for a few days but it rapidly decomposes when exposed to light. The dish should therefore be covered when not in use.

Developing

Gently spray the film with warm/hot water (or cold water for Novaplus) until the image areas are completely clear. Do not exceed 45°C and avoid over washing as adhesion may be impaired. Chill with cool water for 10-15 seconds before applying to the screen.

Preparing the Screen

Degrease and pre-treat new screens with Xtend Prep 101 (see information sheet 'Mesh Preparation and Degreasing Chemicals'), followed by Universal MeshPrep or Autobond X Mesh Conditioner.

Universal MeshPrep thoroughly degreases the screen and improves the wetting-up characteristics of all mesh fabrics - including stainless steel - assisting the application of photostencil films.

Universal MeshPrep working instructions:

- 1 Wet the screen with water.
2. Apply a small quantity of Universal MeshPrep and spread on both sides of the screen with a soft brush.
3. Allow to react for a few minutes and wash off with a strong water spray.

Do not allow Universal MeshPrep to dry in the mesh.

Autobond X is a simple method of providing outstanding adhesion of Autotype and most other photostencil films to polyester or nylon screen fabrics. The adhesion obtained is through true chemical bonding. Newly stretched mesh should be slightly abraded with Prep 101.

Autobond X working instructions:

The screen must be dry before application .

1. Saturate a clean piece of cotton wool or cloth pad with Autobond X.
2. Wipe evenly over the whole of the print side of the screen, applying a liberal coating.

Autotype Indirect Photostencil Films

- When the whole screen has been well wetted the solvent should be evaporated, preferably with warm air. It is likely that traces of Autobond X will appear to fill the mesh of fine fabrics. This is harmless as the excess material will readily wash away before mounting the film.

Do not touch or rub the screen prior to applying the photostencil film, which should be within 24 hours of treating with Autobond X.

Stencils can be applied to recycled screens after repeating the Autobond X treatment.

Adhering

Position the film face downwards onto the print side of the mesh and then invert the screen onto a raised pad and lightly weight to press the fabric into contact with the film. Absorb excess moisture through the fabric by placing newsprint on it and roll firmly with a roller. Repeat until all excess moisture is removed, this is particularly important with fine detail images. Any remaining gelatine containing moisture will tend to drain into the washed out areas and on drying will form a veil across the open areas which is impossible to remove without ruining the stencil. To obtain good adhesion to the mesh the film should have a thin soft layer of gelatine on the surface. This will produce a deposit of colour on the absorbant paper when pressed into the mesh.

Drying

Although indirect film dries very quickly, drying can be accelerated with a fan at ambient or moderate temperature. When dry, carefully peel away the backing film. The space between the edge or the stencil and frame should then be blocked out with 'Autotype Screen Filler'.

Reclaiming the Screen

Gelatine Stencil Remover working instructions (for Novaplust use Xtend strip):

- Remove all traces of ink with a rag soaked in an Xtend Screen Cleaner.
- Wash away any water soluble fillers with cold water.
- Apply Gelatine Stencil Remover with a brush or sponge to both sides of the screen.
- Allow to react for a few minutes, then rub the back of the screen and the stencil will break up.
- Wash off residue with warm water or, preferably, with a high pressure water gun.

See product information sheets 'Xtend Screen Cleaners' and 'Stencil Decoating and Mesh Stain Removal Products' for working instructions.

Standard Packing

Five Star Photostencil Film

FSA02 Rolls 1.04 x 5m
FSA01 Rolls 1.04 x 10m
FSE88 Rolls 1.22 x 10m

Greenstar Photostencil Film:

GNN74 Rolls 1.04 x 10m
GNN76 Rolls 1.22 x 10m

Alpha Star Photostencil Film:

ATK99 Rolls 1.04 x 10m
ATJ48 Rolls 1.12 x 10m

Novaplust Photostencil Film:

NSP01 Rolls 1.04 x 10m

Autotype Powder Activator:

AAA10 100g containers, to make up to 2 ltrs of hardening solution.
AAN47 750g containers, to make up to 15 ltrs of hardening solution.

Universal MeshPrep Degreasing and Wetting Fluid:

ABU70 5 ltr container.

Autobond X Mesh Conditioner:

ABC60 1 ltr containers.

Storage

Indirect Photostencil Films:

Store in a cool place, preferably in the protective tubes supplied. Keep away from photographic papers, films, cardboard or plywood, which might contain synthetic glues or preservatives such as formalin. Do not store in a damp place.

Autotype Powder Activator:

Store in original container, away from direct sunlight or any sources of heat and combustible materials.

Universal MeshPrep Degreasing and Wetting Fluid:

Store in original container in cool, dry environment.

Autobond X Mesh Conditioner:

Store away from heat. Always tightly close container after use.

Safety and Handling

Indirect Photostencil Films and Universal MeshPrep:

These materials are not hazardous when used with reasonable standards of industrial hygiene and safe working practice.

Autotype Powder Activator:

Contains Hydrogen Peroxide. It is irritating to the skin. After contact with skin, wash immediately with plenty of water.

Autobond X Mesh Conditioner:

Contains Trichloroethane. It is harmful by inhalation and should be used in well ventilated conditions. Avoid contact with skin and eyes.

Environmental Information

Indirect Photostencil Films:

These products are water dispersible coatings on polyester film. Polyester is recyclable as clean scrap polyester film when separated from the coating. A local processor should be contacted. The coatings do not contain any materials regarded as ecotoxic or which are EC black or grey listed. Tests have shown no inhibition of activated sludge of typical effluent concentrations and the workings from the coating may be regarded as drain safe and biodegradable.

Autotype Powder Activator:

In concentrated form the product can show biocidal activity but in typical effluent concentrates tests have shown no inhibition of activated sludge and workings may be regarded as drain safe and biodegradable.

Universal MeshPrep Degreasing and Wetting Fluid:

In normal use typical effluent concentrations should not inhibit activated sludge and the product may be regarded safe and biodegradable.

Autobond X Mesh Conditioner:

Dispose of only as chemical or solvent waste. Do not contaminate drainage system. After mesh application the solid material adheres to the mesh and effluent content is minimal.

Autotype Indirect Photostencil Films

Problems and Solutions

Faults	Probable Cause and Remedies
1. Patchy stencil	<ol style="list-style-type: none">Uneven washout - evenly wash both image and non-image areas of the exposed stencil film. Avoid excessive washout temperature and pressure.Poor quality positive - avoid montages or excessive use of adhesive tape.
2. Scumming	<ol style="list-style-type: none">Inadequate washout of film - wash out at recommended temperature with a strong water spray. When image areas appear clean, continue washing for a further 30-60 seconds.Washed out film left to drain - mount film immediately after washout.Film fogged before or after exposure - keep film sealed when not in use. Avoid direct sunlight at all costs.
3. Emulsion washes away during washout	<ol style="list-style-type: none">Under exposure - increase exposure time.Film exposed on the wrong side, i.e. emulsion side - expose film through the base (glossy side).Light source low in UV emittance - replace bulb or use alternative actinic light source.Film has dried out - discard and use another piece of film.Excessive washout temperature or pressure - use recommended washout temperature. Use firm but not excessive water pressure.
4. Pinholing	<ol style="list-style-type: none">Dust or marks on glass of exposure frame, film positive or base of indirect stencil film - clean glass of exposure frame regularly. Check positives for marks or dust. Remove any dust with an anti-static clothUnder exposure (stencil is weak in appearance. A common problem with montages and taped up positives) - increase exposure time.Use of rough vacuum blanket during exposure - protect film from blanket with plastic or cardboard sheet.
5. Premature stencil breakdown	<ol style="list-style-type: none">Ink contains aggressive solvents, abrasive particles (e.g. solder cream, glitter ink), water contamination or rough printing stock (e.g. PCB tracks) — use more robust stencil system (e.g. Capillex).Washups too frequent or incorrect technique - minimise washups by using correct balance of retarder and thinner in ink to prevent drying in.
6. Poor resolution	<ol style="list-style-type: none">Wrong film selected for high resolution printing - use a high resolving film such as Alpha Star or Five Star.Positive of poor quality, or detail too fine - check quality. Is density even? Details as fine as 50-60 microns cannot always be printed, depending on the resolution of the film used.Over exposure - reduce exposure time. See a. above; do NOT under expose a medium resolution film to print high resolution work: a weak stencil will result.Mesh fabric too coarse for desired print resolution - use finer mesh count.Excessive pressure used during mounting of film - use firm but not excessive pressure.Poor light source geometry - avoid multiple light sources, banks of fluorescent tubes etc. Use a point light source at a minimum distance of 1.5 times the diagonal dimension of the vacuum frame.Poor contact during exposure - use a good quality vacuum frame.
7. Poor edge definition	<ol style="list-style-type: none">Positive has poor edge quality - check positive with a magnifier.Mesh fabric too coarse to obtain desired print quality - use finer mesh count.Uneven mounting surface with high spots - mount stencil onto mesh using a flat built up board (glass or Perspex) for support.Excessive pressure used during mounting of stencil film - use firm but not excessive pressure.
8. Poor adhesion	<ol style="list-style-type: none">Inadequate mesh pre-treatment, abrading and degreasing - new synthetic mesh requires abrading before use and recycled screens must be degreased, see section 'Preparing the Screen'.Inadequate mounting pressure - mount stencil film onto mesh using firm pressure.Mesh count too coarse to hold fine detail images - use finer mesh count.Excessive washout temperature or time - reduce washout temperature/time.
9. Brittle stencil	Stencil over exposed - reduce exposure time.

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.

SERICOL
More than ink...Solutions.

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

PRINTED IN ENGLAND 0737/08