



Capillex Direct Photostencil Films

Capillex is a range of pre-sensitised direct photostencil films which are adhered to a wetted mesh prior to exposure.

Capillex combines the fine resolution and edge definition of indirect photostencil films with the registration accuracy of direct/indirect systems and the toughness of direct stencils. Despite their durability, stencils made with Capillex can be readily decoated.

The Capillex range is the most comprehensive on the market and has excellent resistance properties to solvent-based and conventional UV inks.

Meshes

The table below shows the range of mesh counts recommended for each Capillex film type.

Mesh Count/cm	9	34	43	62	77	90	100	110	120	130	140	150	165	180
CAPILLEX 80														
CAPILLEX 50														
CAPILLEX 35														
CAPILLEX 30														
CAPILLEX 25														
CAPILLEX 20														
CAPILLEX 18														
CAPILLEX CP														
CAPILLEX CX														

Instructions for use

Handling

Unroll the film on a flat table and cut the film to the required size with sharp scissors or a scalpel. Be careful not to kink or crease the film as this will affect adhesion to the mesh. The film is sensitive to strong blue and ultra-violet light but it can be handled for short periods in subdued artificial light. For complete safety and especially with fast exposing films, yellow fluorescent tubes or low wattage tungsten lamps should be fitted in a workroom where Capillex films are regularly handled. Capillex films are more sensitive than pre-sensitised indirect films and continued exposure to UV or daylight will cause progressive fogging and poor image reproduction.

In the interest of hygiene and product performance it is advisable to wear nylon or cotton gloves when regularly handling the film.

Positives

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

Preparing the Screen

For the best results Universal MeshPrep is recommended. This thoroughly degreases the screen and improves the wetting-up characteristics of all mesh fabrics - including stainless steel - thus assisting the application of Capillex films.

Universal MeshPrep Working Instructions:

1. Wet the screen to be treated 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.

4. Wash off with a strong water spray.

Note: Do not allow Universal MeshPrep to dry on the mesh.

Adhering to the Mesh

For Small Screens (up to 45x45cm sheet size):

There are two application methods recommended for small screens.

1. The simplest method of applying small sheets of film (such as for CD printing) is to use a mounting board. One of the benefits of this method, is that the use of wet mesh reduces the potential for dust contamination.

Place the sheet of film, emulsion side up, on the mounting board so that the bottom edge of the film just overlaps the bottom of the board.

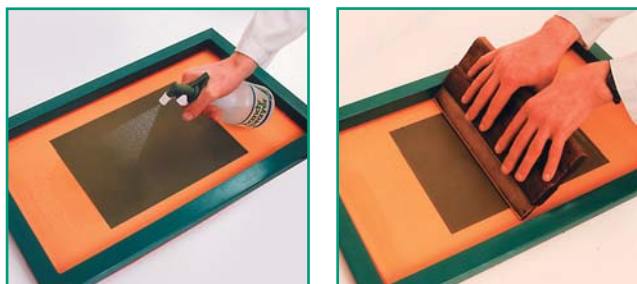
Take a screen which has been prepared with Universal Mesh Prep and is thoroughly wetted. Position the lower edge of the screen on the lower edge of the film at an angle which allows the film to stick to the screen at the point of contact only (see picture). Draw the screen towards you, using light pressure, until the whole sheet of film adheres to the screen.

Lightly squeegee off excess water from the inside of the frame and wipe excess water from the perimeter of the frame to avoid water running back onto the stencil area.



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2. Place the film onto a raised pad, coated side up and lay the dry screen on top. It is recommended that the film is wiped over with an anti-static dust cloth to remove any static attracted particles. Using a hand spray water bottle, spray water evenly onto the mesh until the film is completely wet. Lightly squeegee off excess water from the inside of the frame and wipe excess water from the perimeter of the frame to avoid water running back onto the stencil area.



For Larger Screens:

There are two main application methods recommended for larger format screens: 1. The Autotype Caplicator, and 2. The traditional roll-down method. The Caplicator is the preferred method as it reduces dust contamination and air bubbles.

1. Autotype Caplicator. Cut the film to the required size and roll it, emulsion side out, around the plastic cone supplied with the unit.



Place the roll in the Caplicator, leaving a 1cm leading edge proud of the lip. Position the leading edge of the film at the top of a wet screen which has been prepared with Universal Mesh Prep. Unroll the film from the Caplicator down the mesh to the bottom of the screen. Immediately after film application, remove excess moisture from the inside of the screen with a lightweight squeegee and wipe excess water from the frame perimeter to avoid water running back onto the stencil area.

2. Roll-down method. Wipe the cut section of film on the polyester side with an anti-static dust cloth and roll round a suitable tube (the plastic core of the roll is included for this purpose). Stand the screen in a near vertical position and spray the mesh with water. Wipe off excess water from the perimeter of the frame to avoid rivulets after adhering the film.



Position the leading edge of the rolled film at the top of the wet screen and unroll the film down the screen, thus adhering it to the mesh. Remove excess moisture from the inside of the screen with a lightweight squeegee.

Drying the Screen

Dry the screen in darkness or subdued/yellow light. A warm air fan or heated cupboard, to a maximum temperature of 40°C, may be used but care should be taken not to blow dust onto the drying screen. Peel off the polyester base and continue drying for a few minutes to ensure the film is completely dry.

Storage of Pre-coated Screens

Screens bearing a Capillex stencil may be kept for up to one week prior to exposure and development. The pre-coated screens should be stored in the dark and in a cool, dry area below 18°C and 55% relative humidity.

Exposure

Position the positive, emulsion side in contact with the underside of the dry screen and secure it with tape. Then place the complete screen into the printing down frame and ensure perfect contact before exposing to light. The following table is only intended as a guide because light sources vary according to their age and manufacture.

Exposure Guide (seconds - 5000W Metal Halide 1 amp @ 120 cm)

Capillex								
CP	CX	18	20	25	30	35	50	80
120	130	90	80	120	30	120	120	120

Exposure times are based on ultra orange monofilament polyester fabrics. For stainless steel mesh, exposure times may need to be increased by as much as 100%. Underexposure will produce weak stencils.

Autotype Exposure Calculator

Designed to conveniently and accurately determine the optimum exposure time for any photostencil material and light source at any given distance. 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 its incorrect exposure.

Developing

Place the exposed screen into a sink and gently spray both sides with cold or warm water, not above 45°C. For optimum definition wash out with a strong water spray or high pressure gun (minimum distance one metre) from the stencil side until all the open areas are clear. Immediately after developing, remove surface moisture with newsprint or, for a quicker and more effective result, a screen vacuum dryer. This will speed the drying and also remove any impurities that might cling to the screen in the open areas.

Spotting and Masking Out

Any small blemishes or pinholes in the stencil can be filled in by spotting with a brush using 'Autotype Regular Filler' or 'Autotype Blue Filler'. The same filler is recommended for blocking out the space between the edges of the stencil and the frame.

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Reclaiming the Screen

Remove all traces of ink with a suitable wipe soaked in Xtend Screen Cleaner. Rinse the screen with water and then apply Xtend Strip to both sides of the stencil. Leave for a few minutes. The stencil can then be removed with a strong water jet or high pressure water gun. See Product Information Sheets 'Xtend Screen Cleaners' and 'Stencil Decoating & Mesh Stain Removal Products'.

Standard Packing

Capillex CX Photostencil Film:
CAR92 Rolls 1.04x10m

Capillex CP Photostencil Film:
CAS52 Rolls 1.04 x 10m

Capillex 18 Photostencil Film:
CAT75 Rolls 1.04 x 5m
CAT76 Rolls 1.04 x 10m
CAT77 Rolls 1.12 x 10m
CAT78 Rolls 1.22 x 10m

Capillex 20 Photostencil Film:
CEF12 Rolls 1.04 x 10m
CEF13 Rolls 1.12 x 10m
CEF14 Rolls 1.22 x 10m

Capillex 25 Photostencil Film:
CAR81 Rolls 1.04 x 5m
CAR82 Rolls 1.04 x 10m
CAR83 Rolls 1.12 x 10m
CAR84 Rolls 1.22 x 10m

Capillex 30 Photostencil
CEM26 Rolls 1.04 x 10m
CEM19 Rolls 1.22 x 10m

Capillex 35 Photostencil Film:
CAR86 Rolls 1.04 x 10m
CAR88 Rolls 1.22 x 10m

Capillex 50 Photostencil Film:
CAP74 Rolls 1.04 x 10m

Capillex 80 Photostencil Film:
CEF22 Rolls 1.04 x 10m

Caplicator

CAPL61 61cm width
CAPL79 79cm width
CAPL104 104cm width
CAPL122 122cm width

Universal MeshPrep Degreasing and Wetting Fluid (ABU70):
Available in 1 litre and 5 litre containers with the former packed in flexible bottles with handy dispensing nozzles.

Anti-static Dust Cloths (AEV47):
Box of 10 cloths size 31 x 23cm each packed in an individual re-sealable plastic wallet.

Storage

Capillex Photostencil Film:
Store the film in a cool, dry place in the protective tube supplied. Keep away from drying cupboards or radiators. Do not store in a damp place. Correct storage conditions are at a temperature of 15-20°C and a relative humidity of 45-65%. Shelf life is a maximum of 12 months in these conditions.

Safety and Handling

Capillex Photostencil Film:
This material is not hazardous when used with reasonable standards of industrial hygiene and safe working practice.

Universal MeshPrep:
This material is not hazardous when used with reasonable standards of industrial hygiene and safe working practice.

Environmental Information

Capillex Photostencil Film:
These products are water dispersible coatings on polyester film. The latter material is recyclable as clean scrap polyester film when separated from the coating. A local processor should be contacted. The coating contains principally polyvinyl alcohol and plasticised polyvinyl acetate. Small amounts of insoluble materials such as silica and pigments are present as well as soluble organic light sensitive compounds. The coating does not contain any materials regarded as ecotoxic or on the present EC Black/Grey lists. Tests have shown no inhibition of activated sludge at typical effluent concentrations, and the washings from the coating may be regarded as drain safe and biodegradable. Disposal considerations: as normal solid waste.

Universal MeshPrep:
This product is a dilute mixture of surfactants and weak organic acids. In normal use typical effluent concentrations should not inhibit activated sludge and the product may be considered drain safe and biodegradable. The product contains no EC Black/Grey listed components. Disposal considerations: Flush to waste with water.

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.



Sericol Limited Pysons Road Broadstairs Kent CT10 2LE England
Telephone: (01843) 866668 Fax: (01843) 872074

UK Sales - Tel: (020) 8391 8010 Fax: (020) 8391 8008
Email: UKsales@Sericol.com

Customer Service Centres - Tel: 0845 084 89 89
Birmingham, Bristol, Gateshead, Glasgow, Leeds,
London-North, London-South, Warrington.

Technical Helpline - Tel: 0845 770 80 70

Export Sales

Pysons Road Broadstairs Kent CT10 2LE England
Tel: +44 (0)1843 866668 Fax: +44 (0)1843 872122
Email: Exportsales@Sericol.com

www.sericol.com