



# CAPILLEX CX

## DESCRIPTION

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Capillex CX is a green capillary photo-stencil film specifically formulated for fine line printing in demanding Industrial applications. Capillex CX will give a low, but controlled stencil profile over a wide mesh range from 62-100/cm. The low stencil profile and optimised Rz gives superb print reproduction and minimises the thick edges normally seen when trying to achieve good print definition on coarse to medium mesh counts, especially when using high build inks. Capillex CX will give a thin, flat, but tough stencil on all coarse to medium mesh counts. It is this thin, flat stencil that minimises the ink build at the track edges to produce a cleaner more reliable print that can not only save ink but also reduce wastage. Capillex CX is perfect for demanding industrial applications such as conductive or resistive ink printing and other critical deposit applications. Unlike conventional capillary films, Capillex CX will consistently give the same low, but controlled, stencil profile over a wide mesh range.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

## APPLICATION

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- Printed Electronics
- Industrial applications such as conductive or resistive ink printing and other critical deposit applications.

## FEATURES & BENEFITS

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- Very low stencil profile, typically 3-4 $\mu$
- Optimised stencil surface – low Rz
- Excellent mounting characteristics
- Wide exposure latitude
- Easy washout
- High resolution
- Excellent print quality
- Very durable
- Mesh range from 62-100/cm



By MacDermid Graphics Solutions

## WORKING INSTRUCTIONS

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### Mesh Preparation

All new polyester meshes should be first abraded with Alkemi Autoprep Gel before use and all meshes should be degreased using Alkemi Universal Mesh Prep immediately prior to mounting the film. Used meshes should be re-abraded after every 5 stencils.

### For Large Screens

First cut the film to size and place the film on a dry, flat surface. Using the Alkemi Anti-Static Dust Cloths, remove dust from the polyester backing film as the film is rolled, emulsion side out, around a plastic tube for best results. Place the film in the cassette leaving approximately 2 cm (3/4") unrolled. Spray the mesh with water and wipe excess water from the perimeter of the frame to avoid rivulets after adhering the film.

Contact the rolled film leading edge onto the top of the wet vertical 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 light-weight, window cleaner type squeegee. Wipe excess water from the perimeter of the frame with absorbent cloth then proceed to drying.

### For Small Screens

Method 1: Flat Board Method - Using the Alkemi Anti-Static Dust Cloths, remove dust from the surface and the film. Place the film emulsion side up onto a raised pad or mounting board. Gently draw down a wet degreased screen across the film to adhere it to the mesh. Then squeegee off excess water from the inside of the screen. Wipe water from the perimeter of the frame then proceed to drying.

Method 2: Spray Mount Method - Using the Alkemi Anti-Static Dust Cloths, remove dust from the surface and the film. Place the film emulsion side up onto a raised pad and lay the dry degreased screen on top. Using a hand spray water bottle, spray water onto the mesh until the film is completely wet. Then squeegee off excess water from the inside of the screen. Wipe water from the perimeter of the frame then proceed to drying.

### Exposure

Position the positive with the emulsion in contact with the stencil and place in the printing-down frame. Light sources vary considerably in their general spectral output, therefore it is important to establish to correct exposure level. Check the exposure with the Alkemi Exposure Calculator. Photographic sensitivity 380 – 450 Nanometres

### Washout

Wash out the stencil out with a strong ambient temperature water spray, if warm water is used, maximum temperature 30°C (86°F). Continue washing for one minute after the image area is clear. When washout is complete, remove excess water with newsprint or a wash leather and then dry the stencil with cold or warm air, maximum 30°C (86°F).

### Blockout

Block out the area between the edge of the stencil and the frame with Alkemi Ruby Block, Alkemi Green Block or Alkemi Blue Block.

## WORKING INSTRUCTIONS

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### Drying the Screen

The screen can be dried with cold or warm air, maximum 30°C (86°F). Thorough drying is essential for optimum results. When the support has been peeled off, continue drying for a few minutes to ensure the film is completely dry.

### Storage of Screens

After applying Capillex film to the screen and drying, the screens can be kept in the dark for up to a week before exposure, provided that reasonable temperature and humidity conditions are maintained. If storage of screens is anticipated, it is recommended that the backing sheet is not removed until the screen is about to be exposed.

### Stencil Removal

Clean the screen of all ink and any residues with recommended Alkemi ink remover. After rinsing the screen with water, apply Autostrip or Stencil Remover Concentrate thoroughly with the Alkemi Brush to both sides of the mesh and leave for 2-4 minutes for the emulsion to soften. Then brush over and rinse off with a strong water spray. The most effective removal is with a high-pressure stripper. If a high pressure unit is not available, any ink stain can be removed with an Alkemi Screen Wash or Aquawash. Stencil residue and any residual ink haze can be removed with Haze Remover HV or Autohaze.

## INK COMPATIBILITY

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Solvent based or UV curing inks.

## SHELF LIFE & STORAGE

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The film should be kept in the protective packaging supplied. Store in a cool place away from hot drying cupboards and radiators. Do not store in a damp place. Correct storage conditions are at a temperature of 5 to 20°C (40 to 86°F) and at a relative humidity of 45-60%. Shelf life at these conditions is 18 months.

## PACKAGING

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This product is available in roll widths of 61 cm, 104 cm and 122 cm wide (24 in, 41 in and 48 in) and in a variety of lengths. Custom cut sheets are available upon request.

## WASTE TREATMENT

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Prior to using any recommendations or suggestions by MacDermidConnect for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedent.



## CONTACT INFORMATION

To confirm this is the most recent issue, please contact MacDermidConnect.

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE.

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