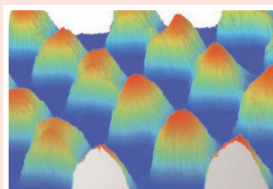
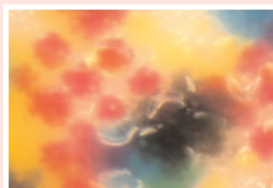


UV Ink Piling and Image Reproduction



UV INK PILE HEIGHT

White light interferometer scan shows the surface texture of substrate, screen printed with a 50% halftone using UV ink. As ink builds during a print run, "ink pile height" begins to interfere with image quality, in the form of skipping and stacking (below).



INK SKIPPING

Previously printed dots can interfere with ink transfer, causing a phenomenon known as skipping. The dots become dissected into a "puppy paw" pattern and from a normal viewing distance, the image looks spotty and very unattractive.



STACKING GAIN

The magenta positive (with dots outlined in white) is overlaid on the print. This shows the severe amount of gain in the magenta print when printing dots on top of dots with a 100% solids ink.

Capillex CP

Controlled Profile Capillary Film for Critical Detail Screen Printing

PRODUCT DESCRIPTION

CAPILLEX CP is a capillary photostencil film that is specifically formulated for fine halftone and line printing. This stencil film will give a controlled stencil profile over a wide range of meshes over 305 threads per inch.

The low stencil profile and optimized Rz (surface smoothness) give superb dot reproduction and help to minimize dot gain and loss (stacking and skipping) that result from excessive UV ink pile height.

CAPILLEX CP produces a highly durable stencil when processed according to instructions, and can be used with all inks that do not contain water.

PRODUCT FEATURES

- Very low stencil profile, typically below 3 microns
- Optimized stencil surface: high-frequency texture, low Rz
- EOM and Rz are manufactured into the film for minimal screen-to-screen variability
- Very durable
- Excellent image acuity (resolution and printed edge definition)

APPLICATIONS

CAPILLEX CP has been designed to produce the optimal combination of stencil profile (EOM) and Rz (surface roughness) for UV halftone and process color printing. It is also an excellent film for printing critical fine-line work. Target applications include: all types of graphics screen printing applications, fine art reproductions, glass and ceramics printing, and industrial applications such as nameplates, overlays and membrane switch components.

HAZARD

There are no hazards associated with the normal use of this product.

WARNINGS

None applicable.

FIRE PRECAUTIONS

Film burns only with difficulty.

SPILLAGE

Not applicable.

FIRST AID

Not applicable in product's normal usage.

SHELF LIFE & STORAGE

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 15-20°C (60-68°F) and at a relative humidity of 45-60%. Shelf life at these conditions is eighteen months.

ENVIRONMENTAL

Capillex films comprise a base film made of PET (polyester terephthalate) coated with a water dispersible polymer layer containing plasticizers, pigments, surfactants and light sensitive chemicals. The clean base film may be recycled via local collecting arrangements for PET. The coating does not contain any materials regarded as ecotoxic, environmentally persistent or listed on the EC Black or Grey lists. The film may be safely landfilled or destroyed by authorized incineration. The coating may be safely washed to waste but operators should ensure compliance with any discharge consent conditions determined by the sewage undertaker or water utility company.

DISPOSAL

Conventional refuse disposal.

PACKAGING

Capillex CP is available in an extensive range of stock and custom cut sheet sizes to suit every application. Sheets are packed 100 per box, except for small format applications (e.g. for CD printing screens) which are packed 300 sheets per box.

TECHNICAL SPECIFICATIONS

Coating	Green, water soluble, UV photosensitive emulsion
Photographic sensitivity	380-450 nanometers
Mesh range	305-455 tpi; optimum mesh ct. 380
Stencil profile	Typically 3µ or less
Rz Value	Built-in high frequency random micro texture @ 5-7µ; on 305/31 mesh, measured at 6-7µ; on 380/31, measured at 5-6µ)
Drying (before exposure)	Maximum 100 degrees F
Exposure time	Moderately fast; 3 min. on 5KW metal halide at 48"
Washout	Warm water, strong spray recommended for fine detail work
Resolution	60µ at optimum exposure 40µ at 50% optimum exposure
Print definition	Excellent
Durability/Resistance	Excellent resistance to conventional UV and solvent based inks; excellent press life when processed in accordance to instructions
Reclaimability	Very easy