

Thick-Film

PRODUCT TECHNICAL DATA SHEET

APPLICATIONS

Thick Capillary Film for electronics, graphics and textile printing.

PHYSICAL PROPERTIES

- Pale Yellow colored Direct/Indirect Capillary Film System
- Available in thicknesses from 100 to 1000 microns
- Excellent for use with High Density Textile Inks and solder paste.
- Outstanding resolution and definition of fine lines.
- Extremely durable on press
- Pin Hole and Fish Eye free.
- Adhere with water or One Pot Sol-C Emulsion as the adhering liquid

HANDLING

Handle under yellow safelights. Avoid exposure to sunlight, fluorescent and incandescent lights.

MESH PREPARATION

It is important to remove any contamination, residual inks, cleaning chemistry, or general dirt and dust. Murakami 701 Haze/Ghost Remover (a non-caustic water soluble liquid) will remove residual ink and/or emulsion. Murakami 801 Screen Degreaser will help eliminate any further contaminants. Completely dry the screen before coating.

FILM APPLICATION

- Peel the clear protective sheet away from the film.
- Place the film on a build up board with the emulsion side up. The build up board should be slightly smaller than the inside of the frame.
- Place the screen, squeegee side up, on top of the film.
- Place a piece of masking tape just above and below the film on the squeegee side of the frame.
- Pour a bead of One Pot Sol-C Emulsion on the top piece of tape
- Use a 60 to 70 durometer squeegee to draw the emulsion across the film from tape to tape two times.

DRYING

Dry the coated screen horizontally with the print side down in a clean light safe area. The following will help to ensure complete drying:

- 86° to 104° degrees F (30° to 40° C)
- 30% to 50% relative humidity
- Good air circulation

The use of a screen drying cabinet with heated airflow can help in maintaining these conditions.

AFTER DRYING

Use the round edge of a scoop coater to apply two additional coats of One Pot Sol-C Emulsion to the squeegee side of the screen. Completely dry the screen before peeling the backing sheet.

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EXPOSURE

Exposure is affected by mesh color, emulsion type, coating thickness, lamp type and the age of the bulb itself. Use an exposure calculator to determine the correct exposure time to fully cure the total film thickness. It is important that a lamp designed for exposing screen printing emulsions is utilized. The spectral sensitivity of MS-Thick Film is between 360 and 420 nanometers.

Note: The use of film positives that are either frosted or have weak black density can reduce resolution and definition qualities of the coated screen.

MS Thick Film	Time/Sec
MS-100	90-120
MS-150	100-140
MS-200	140-180
MS-250	180-220
MS-300	220-260
MS-350	260-300
MS-400	300-340
MS-700	460-500
MS-1000	600-660

Note: All exposure times listed above are suggested times using a 5KW Metal Halide lamp at a distance of 40".

WASHOUT

Exposed screen should be washed out immediately with cool water. A high quality pressure washer is the preferred methods for wash out. Wet the stencil well on the squeegee side. Continue washing from the print side until the image is clear.

Perform a final rinse from the squeegee side to remove any further unexposed emulsion. Blot the screen with clean news print to remove any excess water. Dry the screen in a horizontal position to avoid any emulsion from running into the image area. The use of either a drying cabinet or fans will sufficiently dry the screen.

RECLAIMING

- Use Murakami 501, 505 or 507 Screen Cleaner to remove all excess ink from the frame.
- Remove the emulsion with Murakami 601, 605, or a solution of Strip Super-P. Rinse thoroughly.
- Use Murakami 701 to remove haze and ghost if required.
- Degrease with Murakami 801, rinse both sides thoroughly and let dry.

STORAGE AND HANDLING

Store the film in a cool dry area.

MS-Thick Film has a shelf life of approximately two years. One Pot Sol-C emulsion has a shelf life of at least one year.

Coated screens may be stored for up to two weeks when kept under the following conditions:

- 59° to 77° degrees F (15° to 25° C)
- 30% to 50% relative humidity

PACKING SPECIFICATIONS

All MS Thick Film comes in a 16" x 23" sheet size. Packing: 5 sheets per bag and 20 sheets per box..

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