THE ORIGINAL

DIRECT/INDIRECT® PHOTOSTENCIL SYSTEM

The quality of film with the durability of emulsion.

DIRECT/INDIRECT PHOTOSTENCIL SYSTEM

- Accurate, predictable stencil thickness control for difficult repeat jobs.
- Excellent print quality.
- Excellent durability for long print runs.
- For use with solvent-based, UV and plastisol inks.

The Direct/Indirect System is a two-part system that combines the print quality of film with the durability of emulsion. Ideal for documented quality systems requiring minimal process variance.

Direct/Indirect *films are not pre-sensitized and will not age on the shelf. D-2 Diazo Transfer Emulsion contains a unique, very high sensitizer ratio essential to properly sensitize the film for imaging and maximum durability.*

MATERIALS

REQUIRED
Exposure unit
Washout sink
Clean work area
40-50 durometer soft rounded squeegee

RECOMMENDED
Drying cabinet
Pressure washer

CHEMICALS

REQUIRED

Chroma/Clean™
mesh degreaser

Chroma/Strip™
screen reclaimer

RECOMMENDED

Chroma/Haze™
haze remover

Chroma/Fill™
screen blockout

SAFETY AND HANDLING

There are no hazards associated with this product when used within reasonable standards of industrial hygiene and safe working practices. Refer to MSDS for further information.

STORAGE

Unsensitized Direct/Indirect films can be stored for several years without degradation. Chromaline recommends that unexposed film be stored in a closed container in a cool, dry area.

Unsensitized D-2 Transfer Emulsion has a shelf life of 18 months.

Sensitized D-2 emulsion has a shelf life of 4-to-6 weeks, refrigerate between using.

Protect from freezing. D-2 emulsion is not freeze/thaw stable.

Size/Thickness	Mesh Count	Application
D-50 (0.5 mil/13mm)	280 - 420	Fine halftones, detailed line art and UV inks.
D-75 (0.75 mil/19mm)	230 - 330	Fine halftones and UV printing.
A-100 (1.0 mil/25mm)	140 - 280	General purpose printing, medium ink deposit, light blue for easy registration.
B-100 (1.0 mil/25mm)	140 - 280	General purpose printing, halftones plus medium ink deposit.
B-150 (1.5 mil/38mm)	150 & coarser	For opaque and heavy ink laydown; ideal for solder mask.
B-200 (2.0 mil/50mm)	150 & coarser	For heaviest deposit. Used most often for textile, some graphic applications.

chromaline® SCREEN PRINT PRODUCTS

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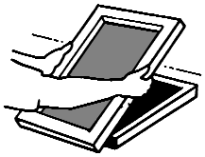
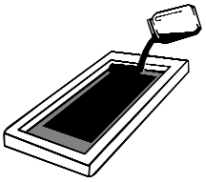
DIRECT/INDIRECT ™
PHOTOSTENCIL SYSTEM

INSTRUCTIONS

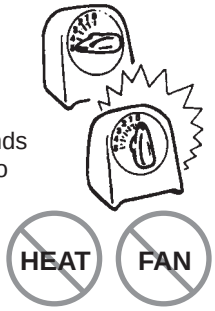
PREPARE
Add water to sensitizer and mix solution into D-2 Transfer Emulsion. Place the film, emulsion side up, on a clean, flat surface which is smaller than the inside dimensions of the screen frame. Place screen, squeegee side up, on film.



COAT
Pour a bead of transfer emulsion at one end of screen. With light squeegee pressure, coat emulsion across screen with soft, round-edged (40-50 durometer) squeegee. Card off excess emulsion. The coated screen should have a shiny or wet look. If not, re-flood and squeegee again.

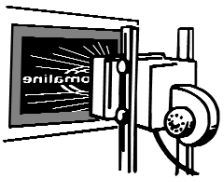


DWELL STEP
After coating with transfer emulsion, allow time for the emulsion to sensitize the film. Chromaline recommends 5 - 15 minutes for this dwell step. Do not use heat or fan. NOTE: The thicker the stencil, the longer the dwell step should take.

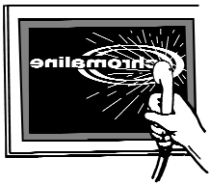


DRY
After dwell step is complete, dry screen in a dark area at a temperature no higher than 110° F. Screen is not dry if the clear backing is difficult to remove. Screen will be dry in approximately 30 minutes.

EXPOSE
To expose, remove the clear backing and place the emulsion side of the positive against the print side of the screen in an exposure frame. Refer to exposure chart.



RECLAIM
To develop, gently spray both sides of the screen with warm water. Wait approximately 30 seconds, then wash the print side of the screen until the image is fully open and foaming has stopped. Rinse squeegee side and dry completely. You are now ready to print.



EXPOSURE GUIDELINES
Note: Exposure times are suggested only as a guide. Use step exposure method or an exposure calculator to determine optimal exposure times. Individual exposure times may vary depending upon equipment used, bulb age, and other shop conditions.

UV EXPOSURE CHART
Starting exposure times for Direct/Indirect Emulsion System using D2 Transfer Emulsion and a 230 yellow polyester monofilament mesh. Chromaline recommends the use of an exposure calculator or step exposure for determining your best exposures with your equipment and conditions.

Film	1 KW @ 18”	5 KW @ 40”	mj/cm²
D-50	3 min. 15 sec.	2 min. 00 sec.	739
D-75	3 min. 45 sec.	2 min. 30 sec.	921
A-100	3 min. 45 sec.	2 min. 30 sec.	739
B-100	4 min. 00 sec.	2 min. 45 sec.	1011
B-150	4 min. 30 sec.	3 min. 15 sec.	1180
B-200	5 min. 15 sec.	4 min. 00 sec.	1470

Film Roll Size	Transfer Emulsion
26” x 50’	One Quart
26” x 200’	One Gallon
52” x 50’	Two Quarts
52” x 200’	Two Gallons

* Exposure times were determined using the Chromaline UV Minder Radiometer/Dosimeter and CHROMALINE EXPOSURE CALCULATOR.

For Technical Service
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