

An introduction to

SUPER PHAT

Film

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High density and special effects printing has taken the industry by storm. Thick films, like Chromaline's Super PHAT film, enable you to achieve extreme ink deposit necessary for "building" layers in your prints. This build-up of ink can be used to create dynamic multi-level prints and simulate textures such as suede, denim, basketballs, etc. - you're only limited by your creativity.



Tutorial

This tutorial will teach you how to properly make a screen with Chromaline Super PHAT film, covering the following topics:

- Materials and equipment needed
- How to make a PHAT film screen using the traditional and spray methods



Materials Needed

- Exposure Unit
- Washout Sink
- Clean Working Area
- Scoop Coater
- Laminating Emulsion (shown at right)
- Fan or Drying Cabinet
- Pressure Washer
- 40-50 Durometer Soft Rounded Squeegee
- Build-up Board



Screen Chemicals Needed

- Chroma/Clean Mesh Degreaser
- Chroma/Strip Screen Reclaimer

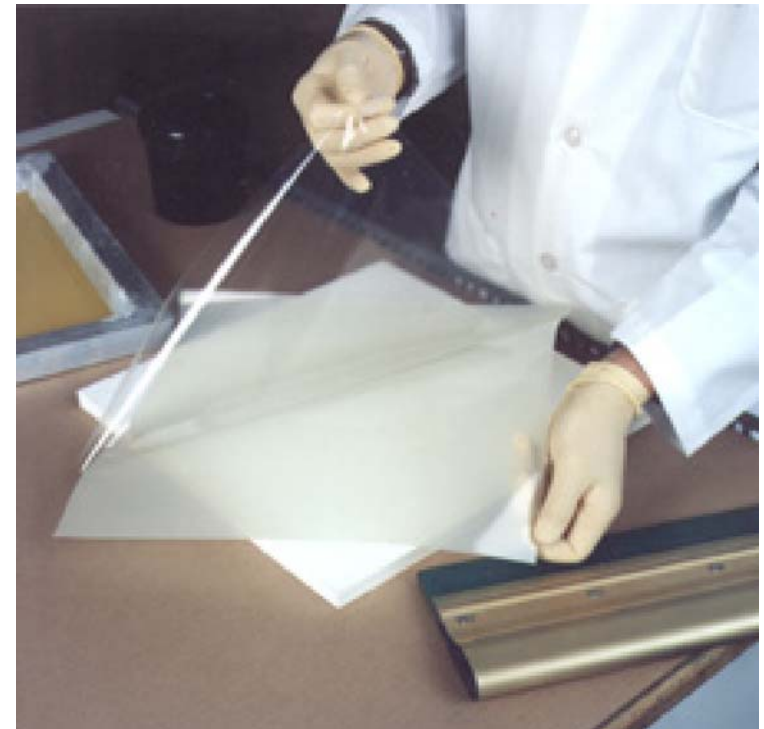


Getting Started

Traditional Method

Step 1

Cut the PHAT film to size, then remove the polyethylene slip sheet. For easy removal, apply a piece of tape to the film's duller emulsion side. Then gently pull the sheet from the film's emulsion side. When ready, place the film *emulsion side up* on a build-up board.



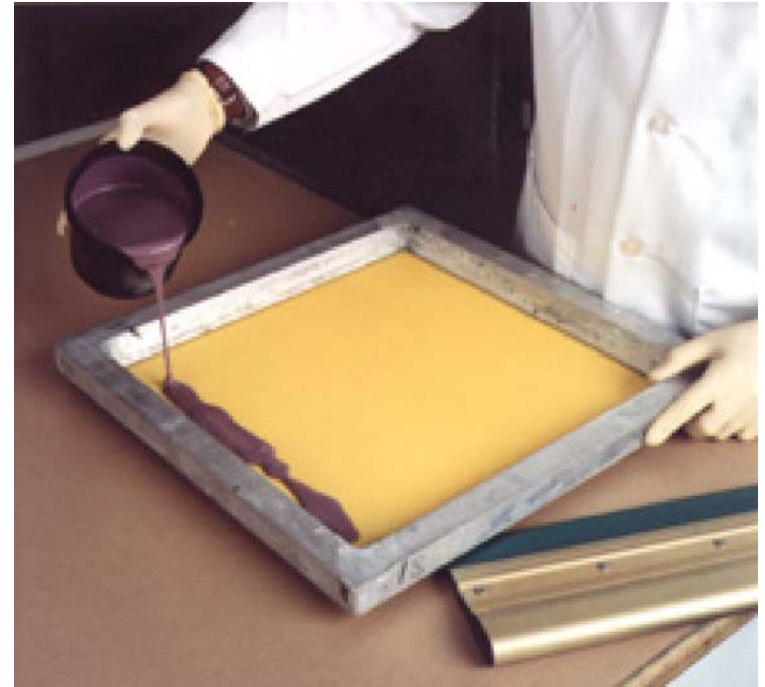
Step 2

Position a degreased and dry screen, squeegee side up, over the film and build-up board. Make sure there is good contact of the film to the mesh.



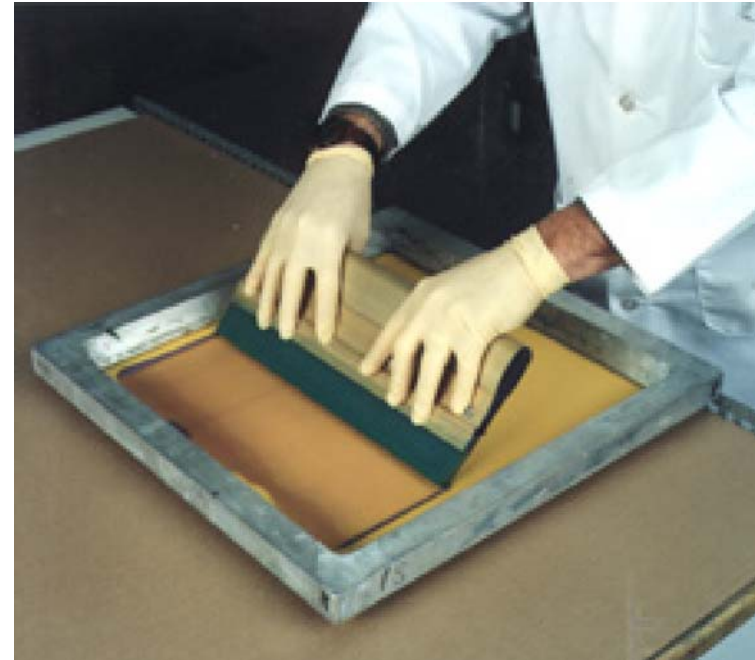
Step 3

Pour emulsion onto the screen. Any Chromaline emulsion will work as long as it's sensitized. Be sure that emulsion is prepared according to product's user specifications.



Step 4

With moderate pressure, draw the squeegee across the screen toward you, just as if you were printing ink. Do this once or twice. Card off the excess emulsion. You have now adhered the PHAT film to the print side of the screen.



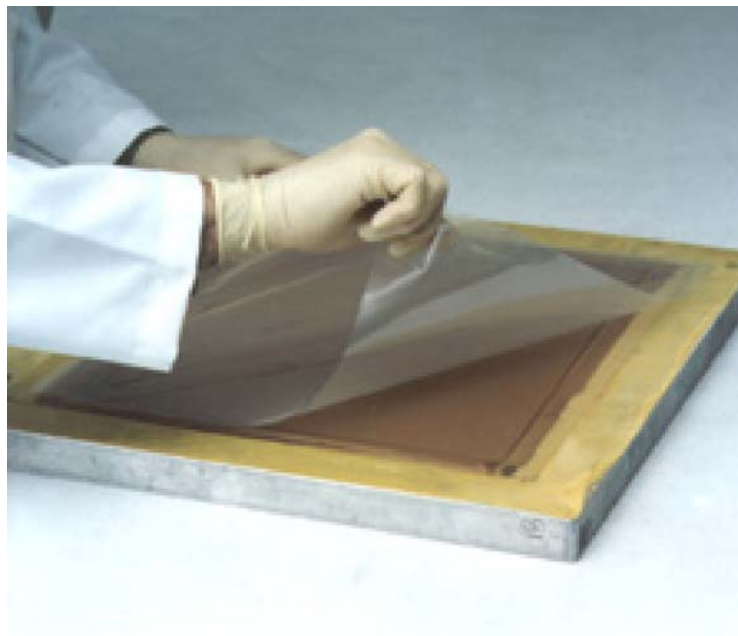
Step 5

Place the coated screen in a dark, clean drying cabinet. This can take anywhere from 1 hour to 24 hours. Drying time will depend on the capabilities of the dryer. Temperature should not exceed 104° F (43° C).



Step 6

When the PHAT film is dry, remove the polyester backing. If the film is completely dry, the carrier sheet should remove easily. If the carrier makes any noise or is difficult to remove, additional drying time is needed.



Step 7 - Optional

If the film needs more adhesion, apply more emulsion. Fill a coating trough with the same emulsion used in Step 3. Scoop coat the inside of the screen and re-dry.



Step 8

Place the positive on the print side of the screen and expose.



Suggested Exposure Guidelines

Micron	Time	mj/cm ²
100	50 sec.	283
150	100 sec.	617
200	150 sec.	921
250	200 sec.	1224
300	230 sec.	1404
350	270 sec.	1460
400	300 sec.	2000
700	550 sec.	2700

Exposure times were set for a 5KW unit at 40" (1 m) from the frame. Millijoules were calculated using the Chromaline UV Minder. These times are suggested only as a guide. Perform a step test to determine proper exposure times. Individual exposure times may vary depending upon equipment used, bulb age, and other shop conditions.

Step 8

After exposure, if the positive is difficult to remove from the screen it is an indication that either the screen was not sufficiently dried before exposure or that the humidity levels in the environment are too high.

Step 9

Develop the screen using a high pressure washer with warm water on the print side of the screen, until image is completely open. Typical washout can range from 2-4 minutes. NOTE: Thicker films and certain artwork may require additional washout time.



Step 10

Once development is complete, place the stencil into the drying cabinet. Stencil should turn from milky white to clear when dry. Allow to dry completely before printing. Be sure to block out any open areas before printing.

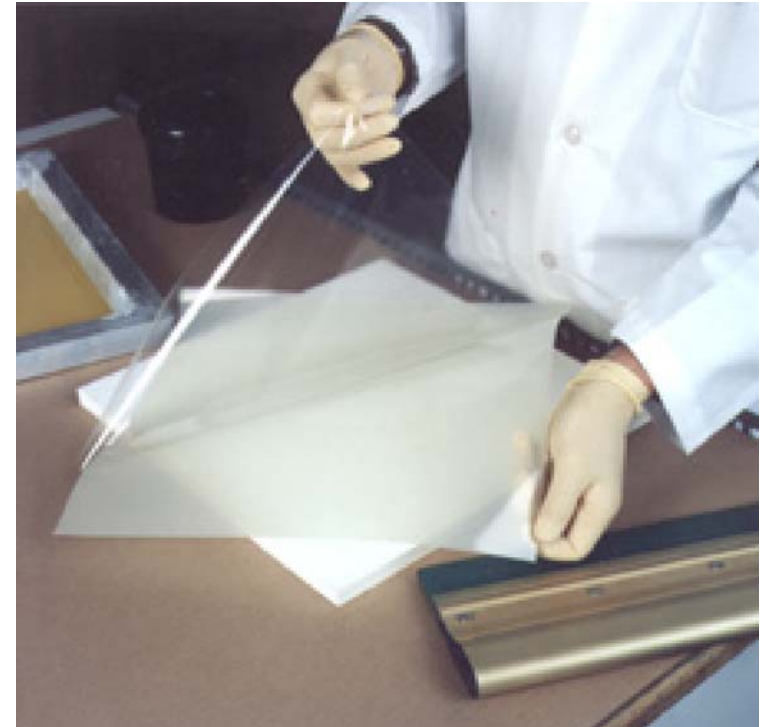
Step 11

When printing is completed, reclaim the screen by applying Chroma/Strip screen reclaimer to the squeegee side of the screen. With a high pressure washer, spray the squeegee side of the stencil. Discard any solid waste in the garbage.

Spray Method

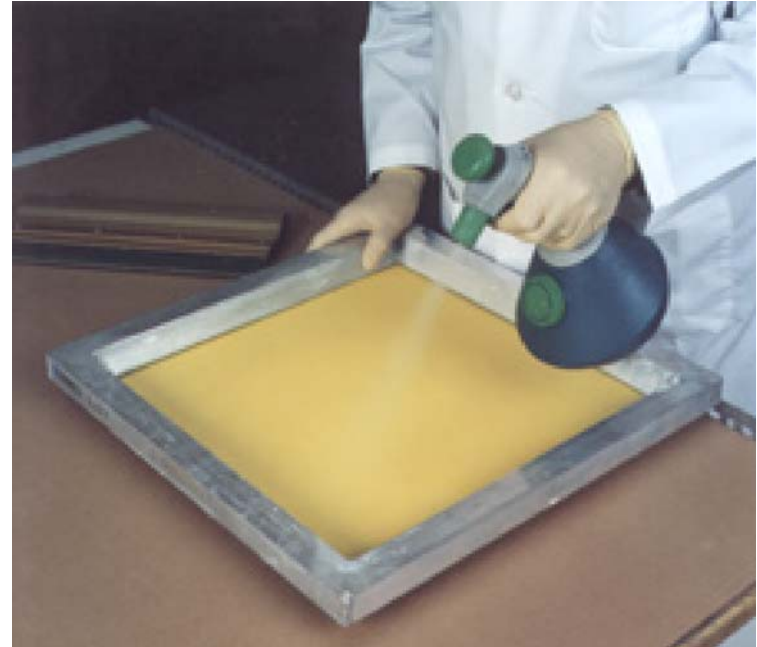
Step 1

Cut the PHAT film to size then remove slip sheet. Place on a build-up board with the emulsion side up.



Step 2

Spray water over the entire area of the PHAT film and squeegee with moderate pressure.



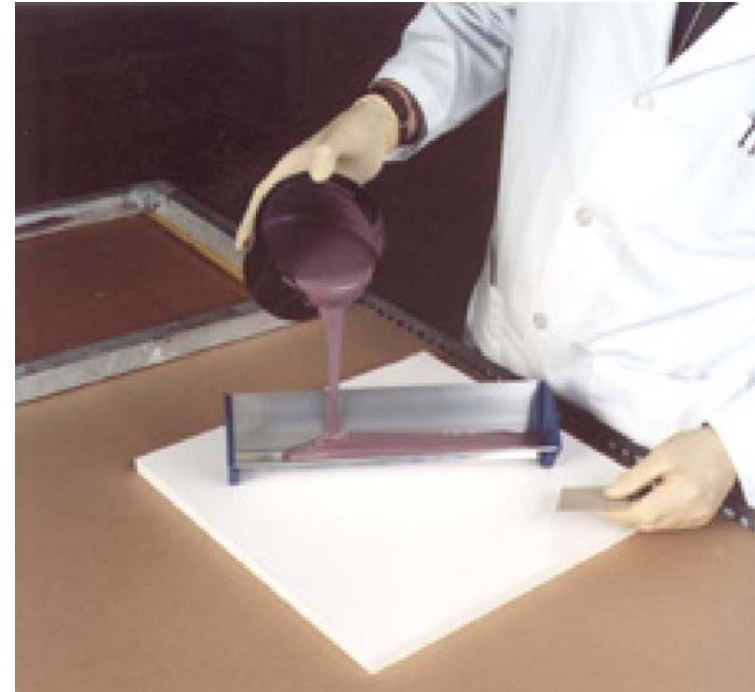
Step 3

Dry the screen in a drying cabinet at a maximum of 110° F for half an hour.



Step 4

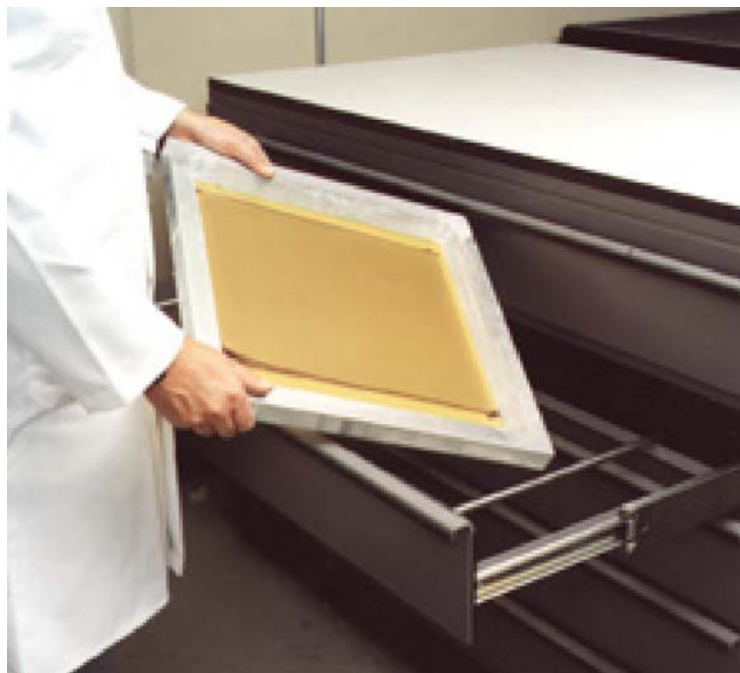
Fill a scoop coater with Chromaline emulsion. Then coat the squeegee side of the screen with 1 to 2 passes. Go slowly to ensure that no air bubbles get trapped.



Step 5

Dry the screen for at least 1 hour at 110° F or until completely dry.

Remove the carrier. If the carrier is difficult to remove, additional drying time is needed.



Step 6

With the carrier removed, place the photopositive on the screen and expose. Refer to exposure guidelines shown previously.



Step 7

Develop on the print side with a high pressure washer using warm water. When image is completely open, place in drying cabinet.



Step 8

When stencil is completely dry, you are now ready to print. Reclaim after printing is complete - follow previous instructions.

You should now understand how to create a stencil with Super PHAT film using either the traditional or spray method. If you need additional assistance, call our toll-free help line 800-328-4261.

Thank you for choosing Super PHAT film from Chromaline!

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