



MURAKAMI

**MURAKAMI THICK FILM
APPLICATION GUIDE**

**PRESENTED BY:
BOB WELLEN**

Why Use Murakami MS-Thick Film?

Murakami has been producing MS-Thick Film for 13 years. Our experience in this particular area of screen printing is recognized world wide. Thick film was originally designed for the printing of solder paste onto circuit boards more commonly known as Surface Mount Technology. Murakami technicians did not have to invent a new product for the introduction of High Density Inks to the textile printer. MS-Thick film was there and waiting in the wings for another opportunity to impact screen printing.

When our friends at Rutland, Wilflex, QCM, Union, and WM Plastics asked us about thicker films for their new ink system, Murakami was ready and able to provide immediate assistance. No building up direct emulsion or stacking thin Capillary films. Murakami was there at the beginning and able to fulfill every request for film thickness from 100 to 1000 microns.

Our technical department is ready and willing to meet any challenge, regardless of how difficult the task might seem to be, to assist our dealers and customers world wide with products that fit the specific needs of the screen printing industry.

100

150

200

250

300

Don't Waste Your Time!

350

400

700

Imagine up to

1000

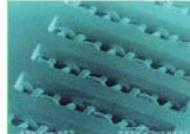
m i c r o n s

*Available in
100, 150, 200, 250, 300, 350, 400, 700, 1000
microns

Using multiple layers of direct emulsion can take approximately two days to prepare one thick stencil, and the stencil thickness and uniformity from edge to edge will always be in question. The exposure time can be as long as thirty minutes.

By using Murakami's "new and exclusive" MS-THICK film the total stencil making process will be reduced to hours. MS-THICK film guarantees uniform thickness over the entire stencil.

Preparing a stencil using MS-THICK film is very easy. You simply choose the appropriate Murakami pure photopolymer emulsion to match your printing needs and apply the MS-THICK film using the direct/indirect method.



The net result will be a savings in your cost per screen and a significant improvement in stencil quality and uniformity.

If time and quality is your objective,
Murakami is your solution.

For more details, visit our website at www.murakamiscreen.com



MURAKAMI SCREEN

The leading manufacturer and provider of stencil-making materials.

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Toll Free: (800) 562-3534
Fax: (213) 980-0559

Atlanta
1200 Chastain Road, Suite #204
Kennesaw, GA 30144
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Fax: (770) 421-0585

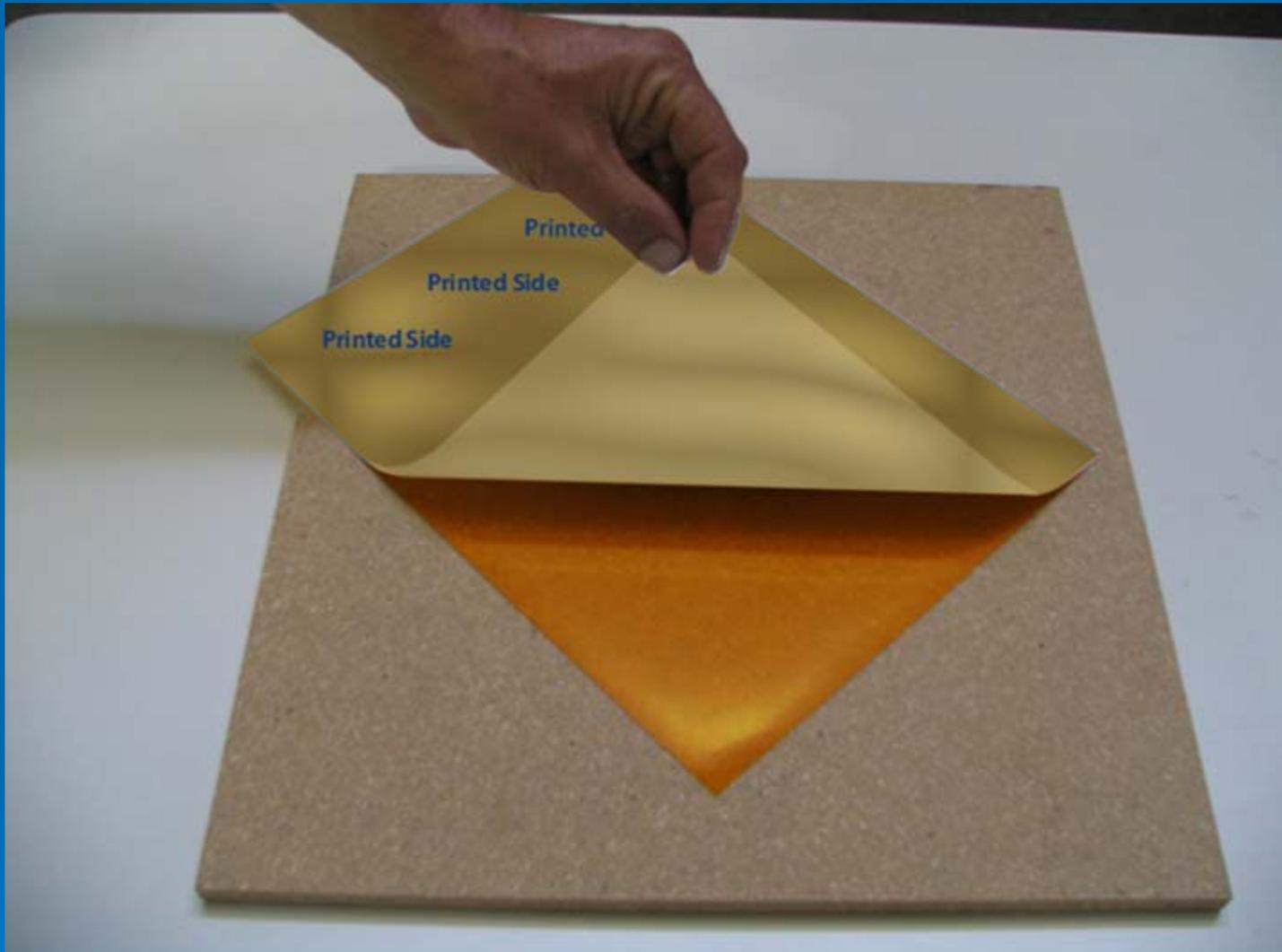


MS-Thick Film Application Tools



MESH SELECTION

- Mesh selection for High Density Printing is just as important as choosing the correct design, proper Thick Film, or ink. The thicker the well of the stencil, the harder it is for the ink to release. Murakami offers several specific mesh counts that allow the ink to release and not have mesh marks on the final print.
- Our LX 80S has a 51 micron thread and a 69% open area, whereas a typical 80T mesh has a 100 micron thread and a 47% open area. These thinner threads and open area allow the High Density Inks to flow and release without leaving mesh marks in the final print. LX 80S mesh has unique threads and knuckle welds that prevent thread gathering during production.
- It may be necessary at times to use coarser mesh count to accomplish a specific job. Murakami and its dealer network are available to assist you in determining the correct mesh count to correspond with a specific thickness of film.



Peel the clear printed protective film



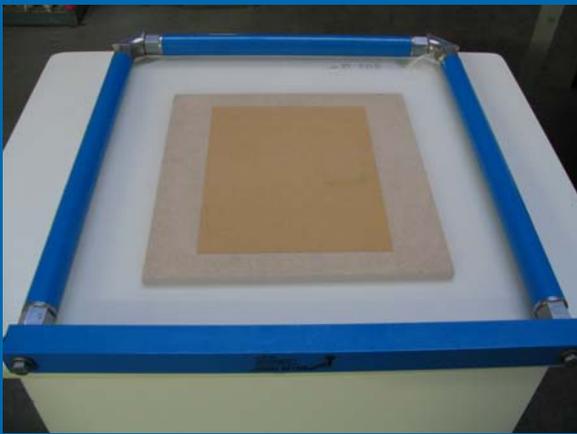
1. Remove clear printed protective layer to expose film surface for adhesion.



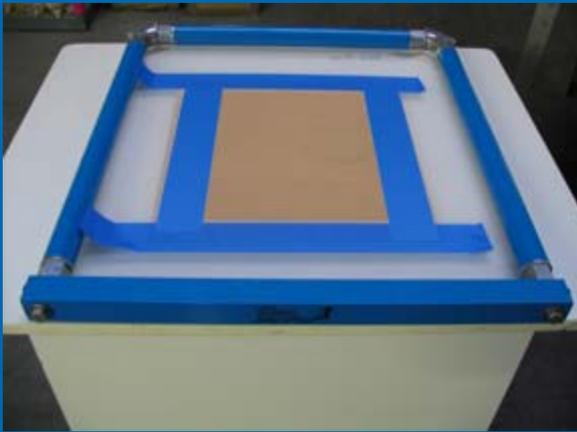
2. Use a build-up board that is slightly smaller than the inside dimensions of the frame but large enough to hold the film.



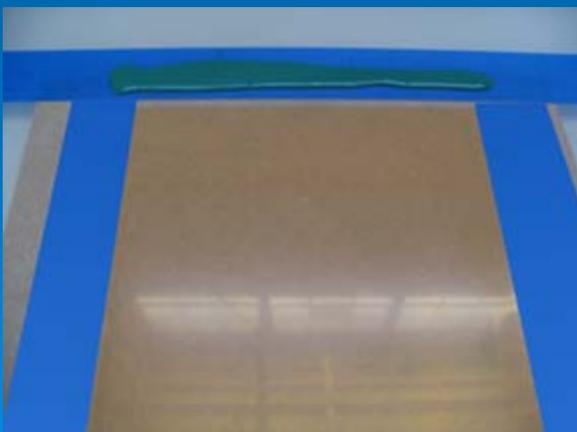
3. Place the Thick Film on the build-up board with the thick film emulsion facing up and the clear protective sheet against the build up board.



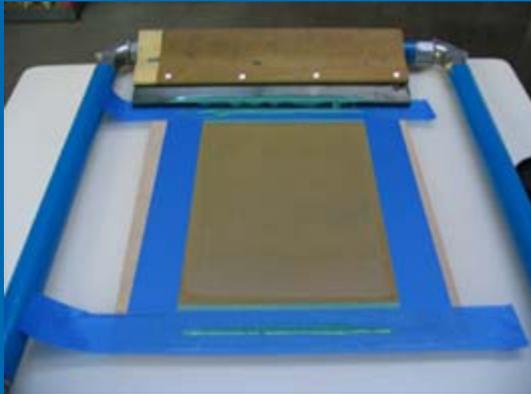
4. Place the frame, squeegee side up over the film. Notice that the frame hangs over the edges of the build-up board.



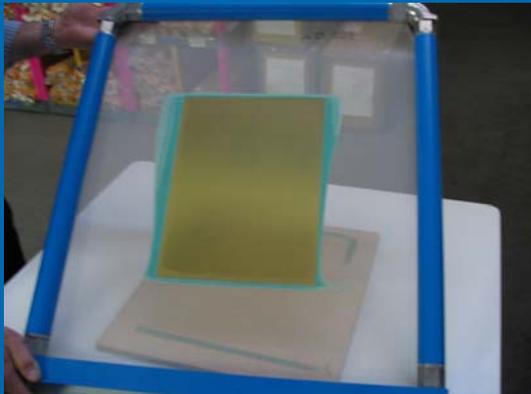
5. Place a piece of 2" masking tape around the perimeter of the thick film to prevent emulsion from dripping through the mesh..



6. Pour a bead of One Pot Sol-C emulsion on the top piece of tape.



7. Using a sharp edge medium durometer squeegee, make four passes across the film from tape to tape. This is the initial adhesion of MS-Thick Film.



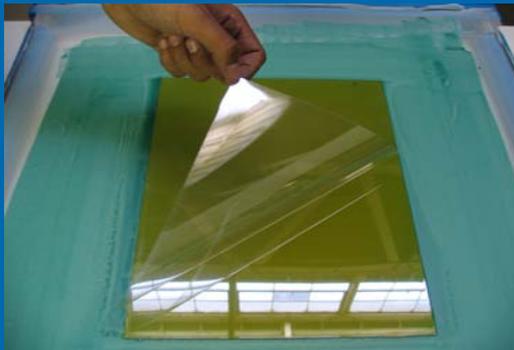
8. Remove the tape and any excess emulsion from the frame.



9. Place frame in a drying rack. Dry with either heat or cool air fan. When initial emulsion layer is dry, the frame is ready for final coating.



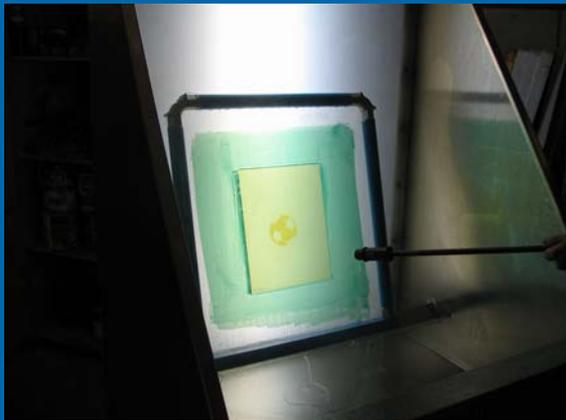
10. Coat squeegee side twice with the dull edge of the coater to seal the stencil. Dry completely until backing sheet releases with ease.



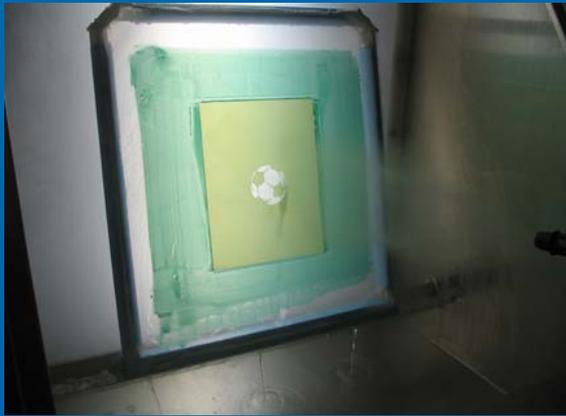
12. Peel backing sheet when stencil is completely dry. The backing sheet should peel with little or no resistance



13. Expose the dried stencil. Exposure time with a 5kw metal halide lamp at 40" is approx. 1.5 minutes per 100 microns of film.



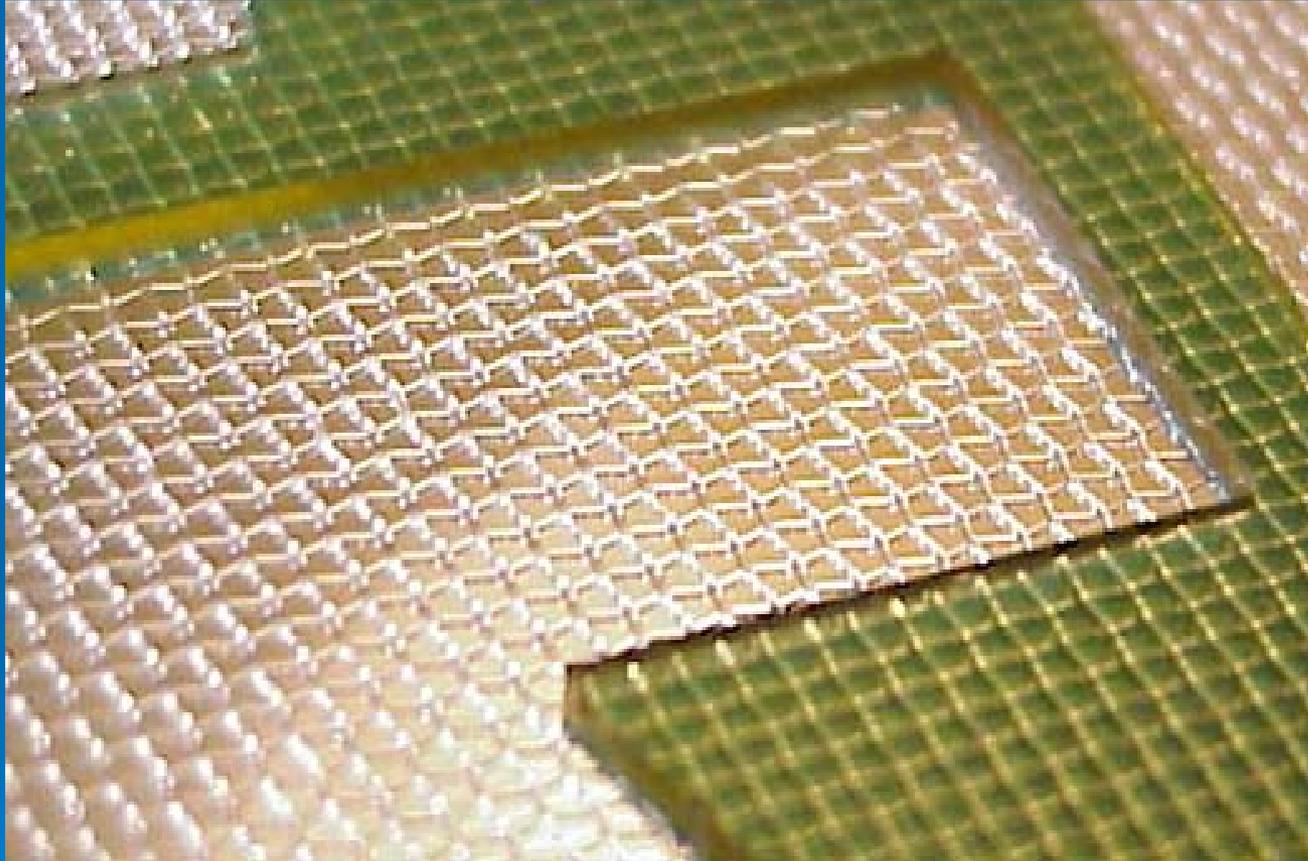
14. Wet the stencil completely from the squeegee side with pressure.

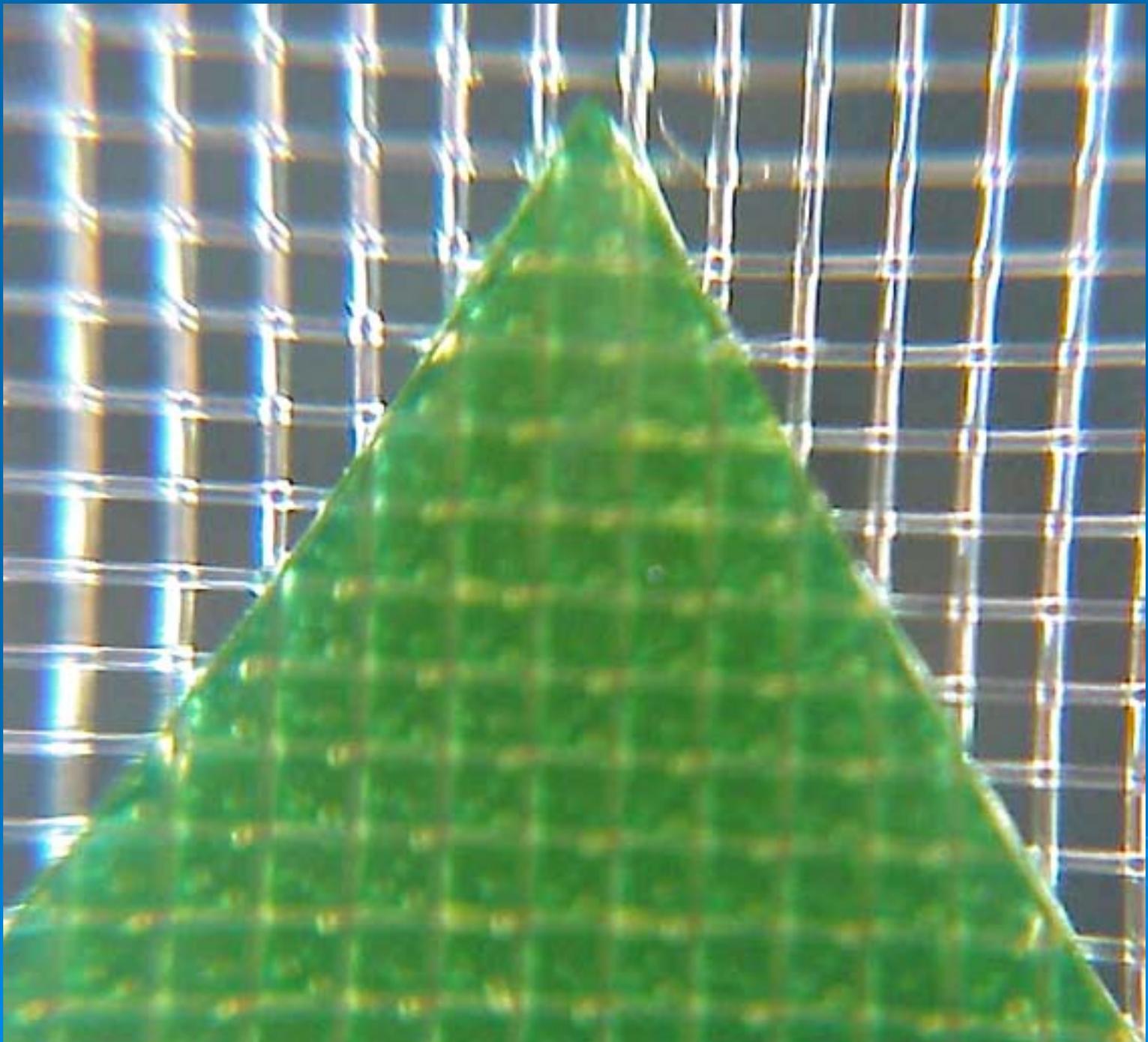


15. Turn the frame to the print side and wash with pressure until the image is completely clean.

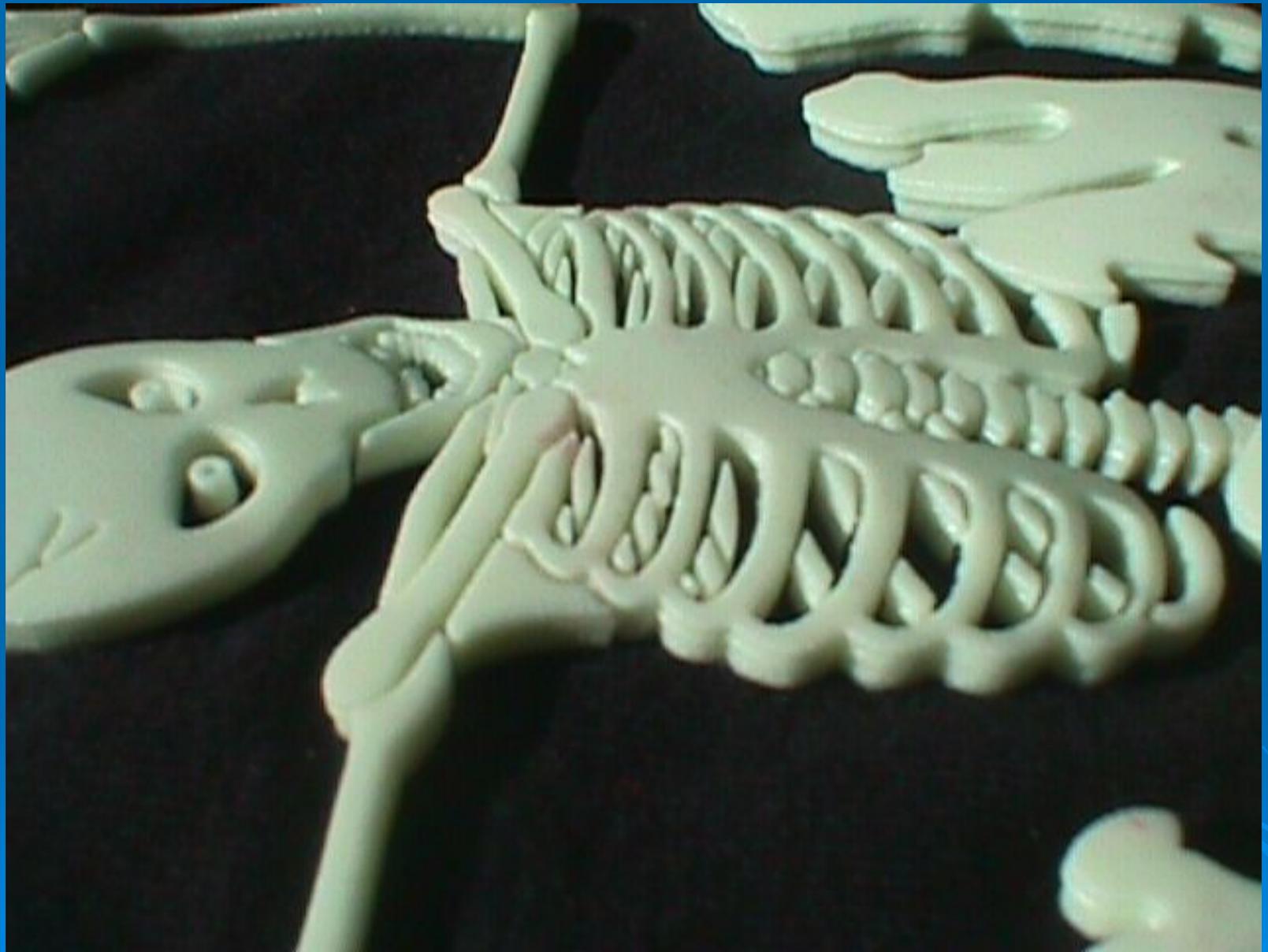


16. The stencil now needs to be dried with a cool air fan and/or limited heat until the screen is dry, then prepare it for the press.











Sample Kits

70S and 80S

4 SHEETS / PACK PLUS EMULSION

HIGH DENSITY MESH

