

Thik Film

High Density Capillary Film

Description

THIK Film features a specially formulated red pure photopolymer emulsion, which ensures fast exposure times and great printing results. Emulsion is coated on a polyethylene coated photo base paper with a silky matte finish. This allows for easy handling before and after exposure. Easy-release paper provides stencil with anti-stick surface and minimizes adhesion to glass during exposure. It also resists pick-up of flashed ink films. Thik film can simply be applied to a wet screen, or laminated with backing emulsion, such as Textil PC Blue or PHU Blue, for increased durability. Thik film saves time and enables fast and easy production of thick stencils with guaranteed thickness and exposure times.

Characteristics

- Easy to handle
- High resolution
- Minimal exposure time
- Ideal for ceramic, electronics and textile applications
- Very good durability
- Time saver in screen preparation
- Extended shelf life
- Excellent print quality
- Perfect for high density printing

| Film Thickness | | | |
|----------------|-----------|-------|------------------|
| Product | Thickness | Color | Recom. Mesh (In) |
| Thik 100 | 100 µm | Red | 110-158 |
| Thik 150 | 150 µm | Red | 86-141 |
| Thik 200 | 200 µm | Red | 81-125 |
| Thik 250 | 250 µm | Red | 74-110 |
| Thik 300 | 300 µm | Red | 61-86 |
| Thik 400 | 400 µm | Red | 38-74 |
| Thik 700 | 700 µm | Red | 17-54 |

Film Storage

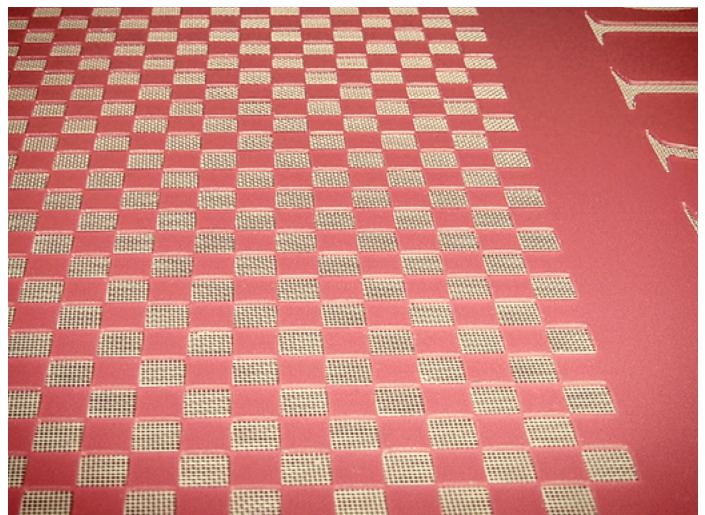
Opened and unopened sheets of film should be stored at temperatures of less than 80°F.

Handling the Film

The film should be handled under low wattage tungsten or yellow fluorescent lighting. The film should be returned to the container after cutting off the required length. Do not kink the film as this could affect adhesion to the mesh. The film should be handled wearing light cotton or lint-free gloves to avoid contact with the emulsion surface. Do not allow the film surface to come in contact with water.

Mesh Preparation

All new mesh should be abraded vigorously on the printing side with SAATI Direct-Prep1 before use. SAATI Direct Prep 2 should be used to provide an even water break and to improve adhesion.



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Adhering to Mesh

Several methods can be employed to adhere SAATI Thik film.

Capillary Film Method

Remove all dust from the emulsion side of the film. Spray the mesh with water and wipe the excess water from the perimeter of the frame to avoid water drops running into the adhered film. Contact the leading edge of the film onto the top of the wet vertical screen and allow the wet screen's capillary action to adhere the film to the mesh. Remove excess moisture from the inside of the screen with a lightweight window squeegee. Wipe excess water from the perimeter of the frame with an absorbent cloth then proceed to drying.

Direct/Indirect Method

Place the film emulsion side up on a raised surface. Place substrate side of screen onto film. Apply a bead of SAATI Textil PC Blue or PHU Blue to the top edge of the film. Squeegee the emulsion several times until film is completely adhered to mesh.

Backing with Emulsion Method

Mount the Thik Film to the mesh using the Capillary Film Method, allow screen to dry and remove backing. Apply two coats of SAATI Textil PC Blue or PHU Blue to the squeegee side of the screen and proceed to the screen-drying step.

For all above methods, the screen can be further reinforced by applying two coats of emulsion to squeegee side of screen after initial drying.

Drying the Screen

The screen can be dried with cold or warm air, maximum 100°F. Thorough drying is essential for optimum results. When the support has been peeled off, continue drying for a few minutes to ensure the film is completely dry. Drying should be in either dark or yellow light conditions.

Exposure

It is always recommended to perform a stepped exposure test to determine optimum exposure. As a guideline, refer to times listed in exposure time chart. The preferred test method is with a blue backing emulsion coated onto squeegee side of screen. Optimum exposure is indicated as the shortest time that fully cures through the red film and leaves a hardened layer of blue emulsion on the squeegee side of screen after developing.

Exposure Guidelines

(in seconds using 5kw metal halide @ 1.5m (40"))

| Film Thickness | | | | | | |
|---------------------------------|-------------------|--------------------------|-------------------------|-----------------------|-----------------------|-----------------------|
| Mesh cm/in Weave Color | 11/30 PW WH | 24/61 PW 120 WH | 32/81 PW 70 WH | 43/110 PW 80 WH | 43/110 PW 80 YE | 62/158 PW 64 YE |
| Thik 100 | | | | 25 | 60 | 40 |
| Thik 150 | | | | 30 | 75 | 50 |
| Thik 200 | | 50 | 40 | 40 | 90 | 60 |
| Thik 250 | | 75 | 55 | 70 | 140 | |
| Thik 300 | 180 | 110 | 70 | 90 | 180 | |
| Thik 400 | 300 | 180 | 150 | 180 | 300 | |
| Thik 700 | 540 | 400 | 300 | 400 | | |

Washout/Development

Wet both sides of screen with a strong, finely divided spray of water and continue washing out from substrate side until all image areas are fully open. Rinse both sides of screen and dry thoroughly before use. A properly exposed and developed screen should not exhibit scumming or feel slimy on the squeegee side. The use of warm water will decrease washout time.

Reclaiming

After printing, scrape excess ink from screen and then clean stencil with Remove IR4, IR8 or IR18. Rinse screen, then strip stencil with ready to use Remove ER5, or diluted Remove ER2, ER6 or ER10. Remove ghost image with a second application of appropriate Remove IR product, followed by high pressure wash. For stubborn stains it is necessary to apply a caustic haze remover, such as Remove HR3, HR5 or HR9.

Packaging

- SAATI THIK Film is available in thicknesses ranging from 100 to 700 microns
- Available in various sheet sizes from 8" X 14" to 24" X 26" as well as 24" X 100' rolls.
- Trial packets available