

## EZ-FILM™

### TEXTILE CAPILLARY FILM; PRICED AS A VIABLE ALTERNATIVE TO DIRECT EMULSION; FAST DRYING; FAST EXPOSING PURE PHOTOPOLYMER (SBQ)

**EZ-FILM** is intended for standard textile printing, and priced to be an economical alternative to direct emulsion in material cost and because it offers significant savings in labor and production time. **EZ-FILM** is ideal for mesh counts ranging from 86 – 156 threads/ inch (33 – 61 threads/cm.). It is pink in color and coated on 3-mil (75-micron) matte-surface polyester. **EZ-FILM** is sold in prepackaged sheets 15 X 17 inches (≈ 38 X 43 cm.) and 17 X 24 inches (43 X 61 cm.). It adheres perfectly, dries faster than direct emulsion, and exposes very quickly. **EZ-FILM** can be adhered with plain water or with **QTX** direct emulsion in the direct/indirect mode. **EZ-FILM** should be used with non-aggressive solvent-based inks and mild washup solvents. Screen openers and aggressive solvents will make screen reclaiming more difficult.

#### INSTRUCTIONS

##### **Step 1: PREPARE THE FABRIC**

Used or surface-treated fabric need only be degreased using **Screen Degreaser Liquid No. 3** or dilute **Screen Degreaser Concentrate No. 33**, or **Magic Mesh Prep**. (Mechanical abrasion, an option for new fabric that is not surface treated, increases the surface area of fabric for a better mechanical bond of the stencil. Use **Microgrit No. 2** before degreasing. Abrading and degreasing can be combined in one step with **Ulanogel 23**.) Rinse thoroughly. Use **Magic Mesh Prep** or **CDF Mesh Prep No. 25** to promote a uniform emulsion coating. (**Magic Mesh Prep** also acts as both a degreaser and an antistatic treatment.)

##### **Step 2: ADHERE EZ-FILM TO THE FABRIC**

Standard Method: Position sheet of **EZ-FILM** on a flat surface, emulsion side up. Place the printing side of a wet screen (preferably directly following the fabric preparation rinse) on top of the film. The film will darken as it is wetted. Use light pressure to press out to the edge of the film any bubbles or gaps between the film and the mesh, then make a single squeegee stroke across the squeegee side. Wipe off any excess water. “Roll-Down” Method: Roll the cut-to-size film, emulsion side out, around a small plastic tube 1” – 1 ½” (ca. 2 ½ X 4 cm.) in diameter. If the screen fabric is not already wetted, soak it from the squeegee side. Contact the edge of the roll to the printing side of the mesh at the top end of the screen. Unwind the roll, maintaining firm contact with the mesh. Make one light squeegee stroke across the squeegee side to remove excess water.

##### **Step 4: DRY THE SCREEN; REMOVE THE BACKING SHEET**

Dry the screen thoroughly at room temperature. Use a fan to speed drying. If possible, use a dehumidifier in the drying area. Under humid conditions, dry the screen in a commercial dryer with filtered air < 104° F. (40° C.). Immediately before exposure, remove the backing sheet.

##### **Step 5: CALCULATE THE APPROXIMATE EXPOSURE**

From the Base Exposure Table (reverse side), identify the light source you are using. The exposure time shown is your Base Exposure Time. Multiply your Base Exposure Time by all relevant Exposure Variable Factors (reverse) to find your Approximate Exposure Time.

##### **Step 6: DETERMINE THE OPTIMAL EXPOSURE TIME**

Make a Step Wedge Test (instructions can be found in the **CDF Technical Data Booklet**) or use the **Ulanog Exposure Calculator Kit**—carried through to actual printing—to determine your optimum exposure time. Optimum exposure is indicated: ■ At that exposure time when the film first reaches its maximum color density and the edges of the positive do not "resolve." ■ The squeegee side of the stencil is hard and not soft or slimy. ■ The print best duplicates the test positive *at the level of resolution that the job requires*. (Note that, since resolution is relative to stencil thickness, it is not possible to resolve a line finer than the overall thickness of the fabric and stencil.)

##### **Step 7: WASHOUT:**

Wash out the stencil with water *from the printing side only* using high pressure or a power washer. When the image areas start to open, reduce the water pressure and rinse the stencil from the printing side until the image areas are completely clear. Blot excess water from both sides of the screen with newsprint. Dry the screen.

##### **Step 8: TOUCHUP AND BLOCKOUT**

For blocking out the screen, use **Screen Filler No. 60** or **Extra Heavy Blockout No. 10** on the dry fabric. For touchups, use **Screen Filler No. 60** or **Extra Heavy Blockout No. 10** thinned with water.

##### **Step 9: RECLAIM THE SCREEN**

Caution: Strong screen openers or ink washes may cause **EZ-FILM** to “lock,” making reclaiming very difficult. Use the ink manufacturer’s recommended washup solvent, or the least powerful ink diluent necessary to remove all ink remaining in the screen. Use **Screen Degreaser Liquid No. 3** to help remove ink or solvent residues that might impair the action of the stencil remover. Rinse the screen with a powerful spray of water. Brush **Stencil Remover Liquid No. 4** or **Stencil Remover Paste No. 5** on both sides of the screen. Do not let the stencil remover dry on the screen, as this can result in a permanent stencil. Wash the screen with a strong spray of water. Use **Haze Remover Paste No. 78** to remove ink and haze residues.

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**STORAGE**: Unexposed screens can be stored in a dark, dry, cool environment for up to one year. Unused film can be stored in its tube for up to two years. High heat and humidity reduce shelf life.



## Technical Data Sheet

### BASE EXPOSURE TABLE for EZ-FILM at 40 inches (100 cm.) on white polyester or nylon.

<b>Light Source</b>	<b>EZ-FILM</b>					
<b>Carbon Arc:</b>						
30 amps	122 sec.					
110 amps	34 sec.					
<b>Metal Halide:</b>						
1000 watts	81 sec.					
2000 watts	41 sec.					
3000 watts	27 sec.					
4000 watts	21 sec.					
5000 watts	16 sec.					
7000 watts	13 sec.					
<b>Pulsed Xenon:</b>						
2000 watts	4 min.					
5000 watts	95 sec.					
8000 watts	60 sec.					
<b>Mercury Vapor</b>						
1000 watts	108 sec.					
2000 watts	54 sec.					
4000 watts	27 sec.					
<b>Fluorescent Tubes#</b>						
40 watts	4 min.					

#Base Exposure Times at 4 inches (10 cm.) using unfiltered black light tubes. For "cool white" or "daylight" tubes, use at least double the exposure time.

### EXPOSURE VARIABLES FACTORS: variables affecting exposure time

<b>Mesh</b>		<b>Exposure Distance:</b>		<b>Exposure Distance:</b>	
Dyed Mesh	1.5-2.0	20"/50 cm	0.25	56"/140 cm	1.95
		24"/60 cm	0.36	60"/150 cm	2.25
<b>Imaging</b>		28"/70 cm	0.49	72"/180 cm	3.24
Fine line reverse printing	1.2	32"/80 cm	0.64	84"/210 cm	4.41
		36"/90 cm	0.81	100"/250 cm	6.25
		40"/100 cm	1.00		
		44"/110 cm	1.21		
<b>Adhering</b>		48"/120 cm	1.44		
Direct/Indirect Method using QTX	1.5	52"/130 cm	1.69		
<b>Taped-up Positives</b>					
Taped-up or montage positives, per layer	1.1				

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