

GELATIN-BASED INDIRECT SYSTEM PHOTOGRAPHIC FILMS HI-FI GREEN®, SUPER PREP®, BLUE POLY-2®, BLUE POLY-3®, RED TI, ULANOPREX

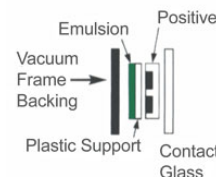
INSTRUCTIONS

Step 1: PREPARE THE MESH

Used or surface-treated mesh need only be degreased using **Screen Degreaser Liquid No. 3** or dilute **Screen Degreaser Concentrate No. 33**. Use **Microgrit No. 2** before degreasing to mechanically abrade new mesh that is not surface treated to increase the surface area of the mesh surface for a better mechanical bond of the stencil. Abrading and degreasing can be combined in one step with **Ulanogel 23**. Rinse thoroughly.

Step 2: EXPOSE THE STENCIL FILM

Place the emulsion side of a **right-reading** positive **against the backing sheet** of the stencil film in a vacuum frame. The positive should be between the light source and the stencil film, and *the exposure should be through the backing sheet of the stencil film*. Select a Base Exposure from the table below corresponding to your film and light source. Multiply the Base Exposure Time by the factor for each relevant variable listed in the **Exposure Variables Table** below to find your Approximate Exposure. Use the Approximate Exposure as the central time in a Step Wedge Test, or with the **Ulanogel Exposure Calculator**.



Step 3: DEVELOP THE STENCIL FILM

Dissolve pre-measured A & B Developer Powders according to the instructions on the packet. (Hydrogen peroxide can be used if A & B Powders are not available. It should be diluted to a 1 ½% solution in a clean glass or plastic container *using distilled water only*.) Place the exposed film, emulsion side up, in a developer tray. Pour the developer solution quickly and evenly over the film. Let the film develop for 90 seconds (180 seconds for Ulanoprex). Rock the tray occasionally to carry fresh developer across the surface of the film.

Step 4: WASH OUT THE STENCIL

Use a gentle washout spray—preferably with an aerator nozzle—to wash out the stencil at the recommended temperature.

| Recommended Washout Temperatures: | |
|-----------------------------------|-----------------------|
| Super Prep, Hi-Fi Green | 38-41°C (100°-105° F) |
| Blue Poly-2, Blue Poly-3 | 36-40°C (97°-104° F) |
| Red TI | 41-43°C (105°-110° F) |
| Ulanoprex | 43-49°C (110°-120° F) |

Wash out the film for several minutes until all the unexposed emulsion has been washed away. Then, gradually lower the temperature of the water to room temperature. Continue to wash for 30 seconds.

STEP 5: ADHERE THE STENCIL

Place the washed out film, emulsion side up, on the buildup board. Gently lower a properly prepared, damp screen, printing side down, onto the film. Place a pad of newsprint (unprinted newspaper stock) on the squeegee side of the screen. Wipe over the newsprint pad with a folded rag or print roller to blot the soft top layer of the film up into the mesh. Remove the bottom sheets of wet newsprint, and continue blotting. Repeat this procedure until the newsprint picks up little or no color from the film emulsion.

Step 6: DRY THE STENCIL: REMOVE THE BACKING SHEET

Dry the adhered stencil thoroughly with cool air. When the mesh surrounding the film is dry (and before the stencil is dry), with the plastic support still in place, apply Screen Filler No. 60 or Extra Heavy Blockout No. 10 to the open area of the screen. After the stencil and blockout have both dried, peel off the plastic support.

STENCIL REMOVAL

Remove all ink from the screen with the recommended solvent. Degrease with Screen Degreaser Liquid No. 3 to speed stencil removal. Wet the stencil from both sides with hot water and let stand for a few minutes. Use Enzyme No. 1 (instructions are available in the Ulanogel Chemical Line Booklet) neutralized with vinegar to remove the stencil.

Technical Data Sheet



BASE EXPOSURE TABLE Exposure times are shown in seconds at 40 inches (100 cm.) exposure distance.

| LIGHT SOURCE | Blue Poly-2 Super Prep | Blue Poly-3 | Red Ti | Ulanoprex | Hi-Fi Green |
|----------------------------|-----------------------------------|--------------------|---------------|------------------|------------------------|
| Carbon Arc: | | | | | |
| 15 amps | 611 | 641 | 1117 | 379 | 763 |
| 30 amps | 304 | 320 | 558 | 189 | 381 |
| 40 amps | 229 | 240 | 419 | 142 | 286 |
| 60 amps | 152 | 160 | 279 | 95 | 190 |
| 110 amps | 83 | 87 | 152 | 52 | 104 |
| Metal Halide: | | | | | |
| 1000 watts | 142 | 150 | 261 | 88 | 178 |
| 2000 watts | 71 | 75 | 130 | 44 | 88 |
| 3000 watts | 47 | 51 | 87 | 29 | 59 |
| 4000 watts | 36 | 37 | 65 | 22 | 44 |
| 5000 watts | 26 | 27 | 48 | 16 | 33 |
| Pulsed Xenon: | | | | | |
| 2000 watts | 141 | 148 | 258 | 87 | 176 |
| 5000 watts | 56 | 59 | 103 | 35 | 70 |
| 8000 watts | 35 | 37 | 64 | 22 | 44 |
| Mercury Vapor: | | | | | |
| 125 watts | 1319 | 1385 | 2415 | 818 | 1649 |
| 1000 watts | 165 | 173 | 302 | 102 | 206 |
| 2000 watts | 82 | 87 | 151 | 51 | 103 |
| 4000 watts | 41 | 43 | 75 | 26 | 51 |
| Fluorescent Tubes*: | | | | | |
| 40 watts | 375 | 394 | 686 | 232 | 469 |

*Note: The base exposure times are given for 10 cm (4 inches) exposure distance for unfiltered black light. For "cool white" or "daylight" tubes, use at least double the exposure time.

EXPOSURE VARIABLES TABLE Factors for Variables Affecting Stencil Exposure.

| Exposure Distance Factors: | | Mesh Factors: | |
|-----------------------------------|------|--|---------|
| 20 inches (50 cm) | 0.25 | Thick stencil on stainless steel mesh (optional) | 1.0-3.0 |
| 24 inches (60 cm) | 0.36 | Thick stencil on metalized polyester mesh (optional) | 1.0-3.0 |
| 28 inches (70 cm) | 0.49 | Imaging Factors: | |
| 32 inches (80 cm) | 0.64 | Fine line positive printing | 0.80 |
| 36 inches (90 cm.) | 0.81 | Fine line reverse printing | 1.20 |
| 40 inches (100 cm.) | 1.00 | Halftones, to 50/in (20 lines/cm) | 0.90 |
| 44 inches (110 cm.) | 1.21 | Halftones above 20 lines/cm (50in) | 0.80 |
| 48 inches (120 cm.) | 1.44 | Humidity Factors | |
| 52 inches (130 cm.) | 1.69 | Relative humidity above 75% | 0.85 |
| 56 inches (140 cm.) | 1.95 | Relative humidity below 25% | 1.15 |
| 60 inches (150 cm.) | 2.25 | Factor for Taped-Up Positives | |
| 72 inches (180 cm.) | 3.24 | Taped-up or montage positives, per layer | 1.10 |
| 84 inches ((210 cm.) | 4.41 | | |
| 100 inches (250 cm.) | 6.25 | | |

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