

# INSTRUCTIONS FOR MAKING POLYMER 21-STEP GREY SCALE TEST CLICHÉ

## EXPOSURE:

1. Under a safelight source (yellow or red), open the plastic package containing the clichés.
2. Slowly remove the clear protective film from a single cliché. Rub pumice on surface of plate.
3. Using only a recommended UV exposure unit, open exposure frame by lifting up front bar (see figure 1).
4. Place cliché, with emulsion (colored) side up, in center of exposure bed.
5. Position the 21-Step Grey Scale Film, emulsion side down, on top of cliché as pictured at left. [NOTE: The emulsion side of the film is the one on which the black image appears duller.]
6. Carefully close the exposure frame over film positive and cliché (see figure 2).
7. Turn on vacuum switch and wait until exposure frame acetate pulls down tightly against grey scale film on the cliché. Pressing on the front bar of the exposure frame may help for a quicker drawdown of exposure frame acetate against film positive on the cliché.
8. Close cover of exposure unit completely.
9. Set exposure time for 30 seconds by turning knob until desired time appears in display (see figure 4).

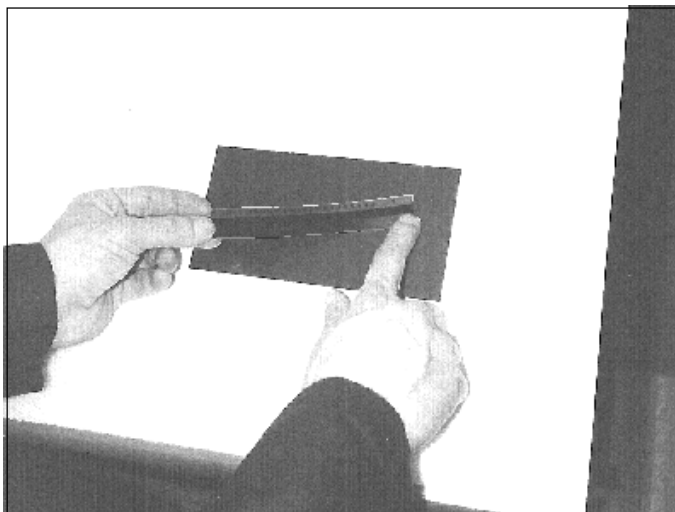


Figure 2. Positioning Grey Scale on Cliché

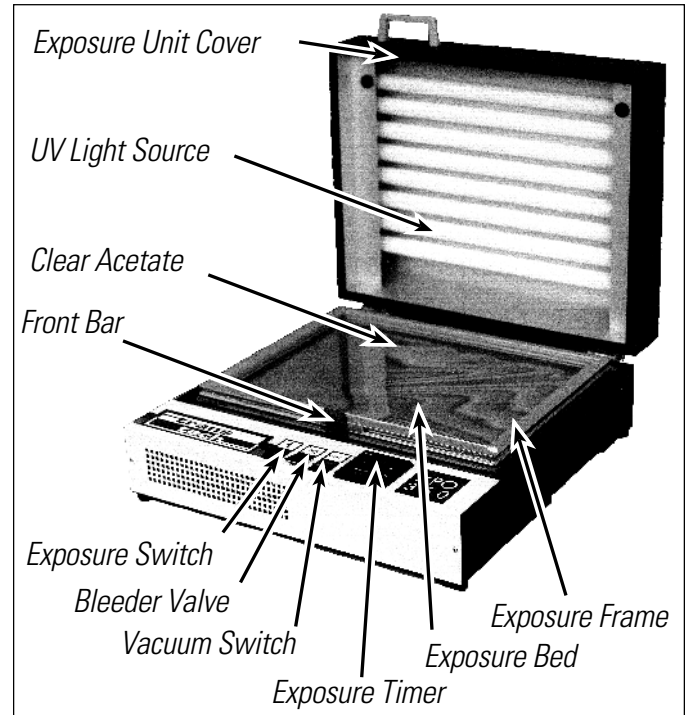


Figure 1. Trans Tech Exposure Unit Parts

10. Press exposure start switch. (Flashing upper indicator light shows that the exposure is in progress.)
11. After exposure is complete, open cover of exposure unit.
12. Shut off vacuum and press bleeder valve to release suction.
13. Open exposure frame by lifting front bar.
14. Remove grey scale film from cliché.

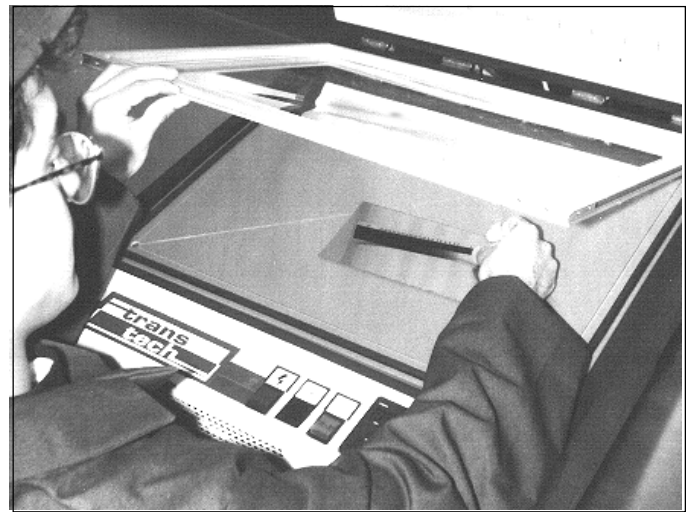


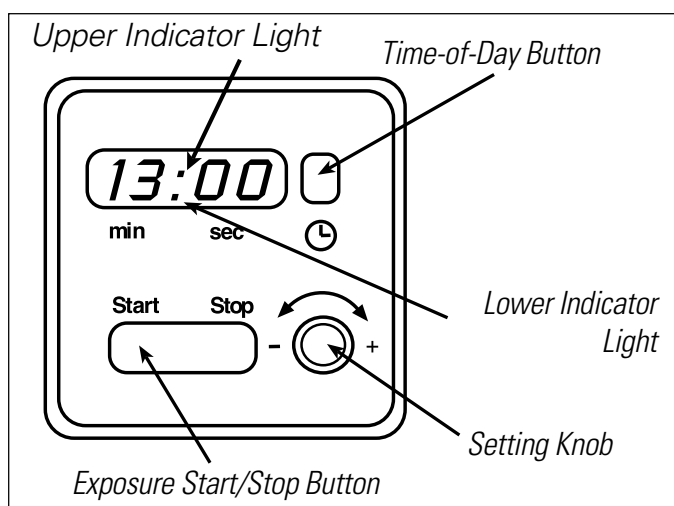
Figure 3. Positioning Cliché & Film Under Frame

## WASHOUT:

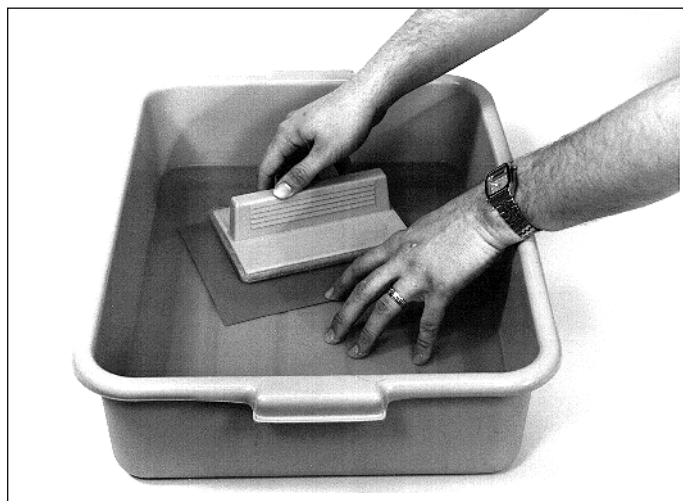
**15.** Fill washout tray to a depth of about 1/4-inch with a mixture of 15% tap water and 85% washout liquid. Temperature of the washout solution will affect the etching of the cliché. Trans Tech recommends that the room temperature be between 70° and 80°F.

**16.** Remove the exposed test cliché from the exposure bed and place the cliché, emulsion side up, flat on the bottom of the washout tray.

**17.** With light pressure, vigorously agitate the washout brush on the surface of the cliché for two minutes (see figure 5).



**Figure 4. Timer Controls**



**Figure 5. Washout Tray & Brush In Use**

**18.** Remove the etched cliché from the washout tray and with compressed air blow off excess washout solution from the emulsion side of the cliché.

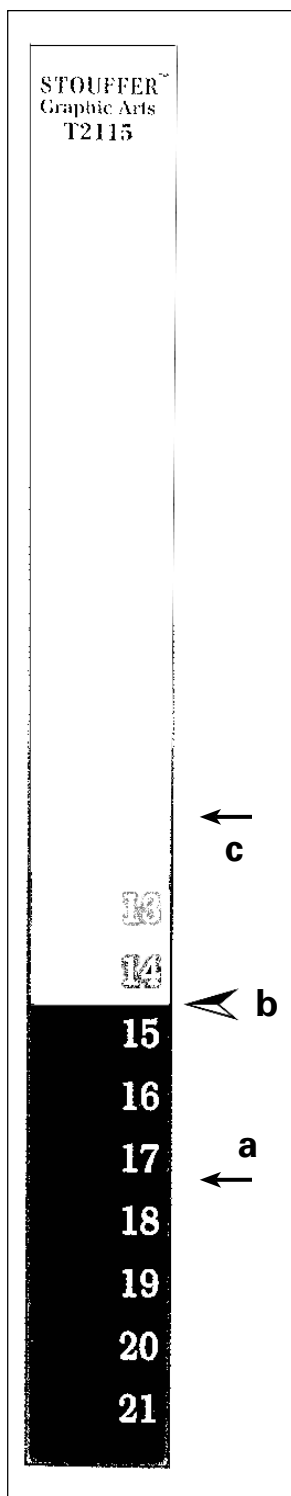
## RESULTS:

**19.** With the proper exposure time, the red emulsion on the grey scale test cliché will etch away up to 14-1/2 (see "b" in figure 6). If the break between etched "a" and unetched "c" areas is LOWER than 14 on the cliché, you will need to INCREASE exposure time and make another test cliché.

If the break between etched and unetched areas is HIGHER than 15 on the cliché, you will need to DECREASE exposure time and make another cliché.

Once you have determined the proper exposure time for the grey scale test cliché, that exposure time should be used on the main exposure and the screen tint exposure of your production clichés.

**For any questions about supplies, contact us at 630.752.4000.**



**Figure 6. Properly Exposed and Processed Polymer Grey Scale Test Cliché**



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