

# F PHOTOGRAPHERS' FORMULARY INC.

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## TD-31 SUBSTITUTE FOR SELECTOL SOFT®

CATALOG NUMBER 02-0112 TO MAKE 2 TO 4 LITERS OF WORKING SOLUTION  
CATALOG NUMBER 02-0113 TO MAKE 4 TO 8 LITERS OF WORKING SOLUTION

TD-31 is a neutral-tone, low contrast print developer similar in properties to Selectol soft. It produces subtly softer, cleaner prints than Selectol-soft, but the differences are very small. Use the same dilution you would for Selectol-soft. This is normally 1 part stock to 2 parts water, with a developing time of two minutes. For greater contrast, TD-31 developer can be diluted 1:1 or even used full strength. For less contrast TD-31 can be diluted 1:3 or 1:4. (NOTE: Selectol-soft is very close to Ansco 120 and Dr. Beers No. 1. TD-31 produces slightly lower contrast and a more neutral tone than these developers, yielding somewhat more print control.)

### FOR YOUR CHEMICAL SAFETY

All chemicals are dangerous and must be treated with respect. Please read the chemical warnings on each package. Always use rubber gloves and dust mask when using chemicals.

Some individuals become sensitized (develop allergic symptoms or rashes) when using Metol. If this should occur, discontinue use and consult a physician.

The user assumes all risks upon accepting these chemicals. IF FOR ANY REASON YOU DO NOT WISH TO ASSUME ALL RISKS, PLEASE RETURN THE CHEMICALS FOR A FULL REFUND.

**Consult with your local sewer and water authorities regarding disposal of darkroom chemicals.**

KEEP AWAY FROM CHILDREN

**FIRST AID:** If contact is made, flush with water. If extensive contact is made or if in eyes, consult a physician. If inhaled or swallowed, get medical attention at once.

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## STOP BATH

It is important to use fresh stop bath. This should be either the standard 2% acetic acid, or if an odorless stop bath is desired, Formulary TS-4 is recommended.

## STORAGE

After mixing the stock solution will last up to six months if kept in a tightly-capped bottle filled to the top. However, for best results, all developers should be used as soon as possible after mixing. After dilution to a working solution, the developer should be discarded at the end of the day's work.

## CAPACITY

Capacity of the developer can be stretched to about 25 8x10s per liter of 1:2 working solution. This may however be a false economy for photographers interested in the finest print quality. Ansel Adams, in *The Print*, recommends that one ounce of stock solution of this kind of developer (regardless of the dilution used) develops one 8x10 print. This means that a quart of stock solution should be used for only 32 8x10's. Therefore at a normal 1:2 dilution, a quart of working solution should only be used to process about 10 8x10's. (Note that a Dektol-type developer such as TD-30 has exactly twice as much capacity).

## FOR BEST RESULTS USE DISTILLED WATER

### HOW TO MIX TD-31

Mixing is very simple. Place 500ml or 1000 ml of water, depending on kit size, at about 120° F in a container. Slowly add the contents of Packet A to the water while stirring gently. Continue stirring for one minute. If the chemicals don't go into solution add a pinch of Packet B. Once completely dissolved, slowly add the contents of Packet B. Continue to stir for one minute. If the developer has not completely dissolved, leave it for fifteen minutes and stir for another minute. Place 500ml or 1000 ml of water, depending on kit size, at about 120° F in another container. Slowly add the contents of Packet C to the water while stirring gently. Continue to stir until all of the powder has gone into solution. Now pour the two solutions together in a bottle, filling it to the top and seal tightly.

### ALTERING IMAGE TONE AND CONTRAST WITH TD-31

There seems to be a constant desire among fine printmakers to obtain a colder, bluer black tone than seems possible with modern papers. This can be achieved with TD-31 by adding antifoggant to the working solution of the developer. Formulary's TAF-1 is a modern version of the old "BB" type of developer-improver. 10 to 100ml can be added to each liter of TD-31 working solution. For a warmer tone, simply add a gram or more of potassium bromide to TD-31 working solution.

This addition will also have an effect of increasing contrast, leading to a slightly snappier print. However, speed of the paper is decreased somewhat. It will therefore be necessary to expose the print for a slightly longer time when bromide is added. Development time can also be increased up to 3 or 4 minutes since there is no danger of fog. This may lead to a better maximum black, and greater shadow and highlight contrast than without the use of antifoggant.

However, even without the addition, a fine neutral to cold tone is obtained with TD-31. One hint to printmakers concerned about obtaining the finest image tone: never underdevelop the print. Developing times of less than two minutes are bound to lead to poor tone. The benefits of very dilute selenium toning to obtain a more neutral black with modern papers react very differently to selenium and other toners, so that an almost limitless variation in tones is possible.

### LOW-ODOR ARCHIVAL FIXING

Printmakers interested in a low-odor rapid archival fixer are encouraged to try Formulary's TF-4. This fixer works in 30 seconds on RC paper (1 minute on fiber-base), and produces an archival print after only 20 minutes of washing. Use of this fixer does not require either a hypo clearing agent or an acid stop bath. Although it can be used with an optional hardener which does not interfere with archival washing, unhardened prints are easier to spot and tone.

### CONTRAST CONTROL WITH TD-30 AND TD-31

Both of these developers can be used in a variety of ways to achieve fine-tuning of contrast. An excellent description of contrast control using Dektol and Selectol-soft which can be applied to TD-30 and TD-31 can be found in Ansel Adam's *The Print* (1983). These developers can also be used exactly like the Beers developers. In general there are two approaches.

The two-tray method can be used. In this case, the print is first placed in the low-contrast developer, TD-31. If the print seems to be too soft, development can be finished in the second tray of high-contrast developer, TD-30.

A method which is probably better is as follows:

Make the first print in the low-contrast developer, TD-31. If this is slightly too soft, but moving up to a higher grade of paper would give to hard a result, simply add a small amount of TD-30 stock solution to the tray of TD-31, until the perfect intermediate contrast is achieved.

FOR ANSWERS TO QUESTIONS ON THE USE OF TD-31 PAPER DEVELOPER, PLEASE CALL US AT 406-754-2891.

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