

For higher contrast results, make a high-contrast copy negative from your original negative and print that. Litho films are typically used for this purpose. They provide sharp and fine-grained negatives, which hold up very well when enlarged.

Another reason litho films work so well for making copy negatives is that they can be exposed and developed just like prints. Like printing paper, they come in sheets (from 4"x 5" to 16"x 20" and even larger). And unlike standard films, most are orthochromatic, not sensitive to red light, so they can be used with safelight illumination. A red safelight is recommended, but the normal amber safelight commonly used for printing also is fine.

Litho films can even be developed in a standard paper developer, though special two-part litho developers produce higher contrast. Whether you're using standard print developer or litho developer, you can choose to modify the manufacturer's instructions; for maximum contrast, use developers that are highly concentrated (less diluted with water) and longer developing times.

Be sure to handle litho films with particular care, as films are more prone to scratching and other physical damage than paper. Follow these steps to make a copy negative:

1. *Position your original negative in the enlarger*, and focus, adjust the size, and close down the lens aperture as if you were printing onto paper.
2. *Cut a sheet of litho film in three or four strips* to make a test strip. Litho films come in many sizes, but the most popular for this use is 4" x 5".
3. *Place one strip of litho film in the easel*, emulsion side up. Determining the emulsion side can be tricky; it's the dull and probably lighter side of the film.
4. *Make a test strip* representing several different exposures (say 3, 6, 9, 12, and 15 seconds).
5. *Process that strip in trays*, using either litho developer for highest contrast or standard paper developer. Processing steps are about the same as for resin-coated (RC) papers, though they can vary with different manufacturers.

Developer	2 minutes
Stop bath	30 seconds
Fixer	2 minutes
	film or paper strength hardener

6. *Examine the test to determine the correct exposure*. If that exposure is 9 seconds, set the timer accordingly.
7. *Place a full sheet of litho film in the easel and expose it for 9 seconds*.
8. *Process and wash the full sheet of film*. Wash the film one sheet at a time in a special washer made for sheet film. Or, wash it in a tray with a gentle stream of water from a siphon or faucet, changing the tray water every 30 seconds. Either way, handle the film with great care, as it is soft and easily scratched or otherwise damaged.

Water wash	3 minutes
Fixer remover	2 minutes
Wetting agent	30 seconds

9. *Hang the processed film to dry* in a film-drying cabinet or from a string or wire (stretched taut like a clothesline). Use a film clip or strong-type clothespin to hang the film by one corner. Drying takes about 30 minutes to 1 hour.

The resulting image will show a reversal of image tones; dark areas of the original negative will be light and light areas will be dark, thus creating a high-contrast interpositive—a positive copy on film of the original negative. If you use it to make a print, you will get a paper negative, a negative image on paper. So, you will have to copy the interpositive onto another sheet of ortho litho film to produce an internegative, a negative copy on film of the original negative. Copying the internegative again will add even more contrast to the final result.

There are two ways to produce the needed internegative: You can enlarge the interpositive onto larger size litho film. Or, you can contact print it onto film the same size as your negative. Either way, you handle the film pretty much the same way you would handle paper when making an enlargement or contact print. Place a fresh sheet of litho film in an easel to make an enlargement—or place it pressed flat against the interpositive to make a contact print (Make sure the contact glass is clean and scratch-free to avoid recording scratches or blotches on the resulting internegative).

Always make a test strip, regardless of which method you use, then develop the test, examine the results, and make an exposure on a fresh, full sheet of litho film. Process the film, then wash and dry it and you will have a film internegative with significantly more contrast than your original negative.

Deciding whether to enlarge or contact print to make the internegative has something to do with the equipment you have available and also the size you want to make the final print. If you want to enlarge a 4" x 5" interpositive, you will need an enlarger that takes a large negative. This will allow you to make an internegative at a larger size—8" x 10" or whatever film size you use—and then make a contact print onto paper of for the same size final print. By contact printing the interpositive, you produce a 4" x 5" internegative, which you can then contact print onto 4" x 5" paper for a small print—or enlarge it to whatever size paper you like, assuming you have an enlarger that takes the 4" x 5" internegative.

If the internegative still doesn't have enough contrast, then use variable-contrast paper and a #5 filter (or a high-contrast graded paper without a filter) when printing. If this still does not produce a high enough contrast result, make another interpositive from your internegative, then make still another internegative until desired results are achieved.

You can also make a copy negative to improve the contrast of a flat, underexposed negative, which would otherwise print too gray. These techniques are also useful for simply improving flat, low-contrast negatives. And you can also use these techniques for many other purposes, not all of which need extremely high contrast, such as solarization and making negative prints.