LIABILITY

No liability is accepted by the maker and /or supplier of this developer other than for the value of the developer itself if found to be faulty. No liability can be accepted for any consequential loss or injury. The maker/supplier will be pleased to replace any faulty developer or refund the purchase price provided that the defective items are returned to the maker/supplier within fourteen days of date of purchase. **You are strongly advised to conduct your own tests before committing valuable films to this developer.**

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Barry Thornton's EXACTOL LUX©

Exactol Lux©, a unique developer of special interest to artists and photographers wishing to produce monochrome fine prints, is from the same stable as *DiXactol Ultra*, and has the same distinguishing characteristics. Clean working; it produces the fullest palette of richly graduated tones, especially in the holding of translucent and delicately drawn highlights particularly resistant to 'blocking up' at high exposure levels. At the same time, shadow detail and separation are nursed up to unusual levels. Printing is likely to need significantly less burning in, in landscape skies, for instance, and graduation is likely to be markedly superior in these burned-in areas. Discriminating workers appreciating the fine separation of tones should find this a fulfilling developer. *Exactol Lux* is balanced to give more subtle grain than *DiXactol*, especially on smaller film formats.

Additionally, almost all films (with the exception of adapted document copying films) can be developed together, regardless of film speed or make, for about the same time to produce exceptionally easily printable negatives. It makes the simultaneous processing of roll films containing many different pictures with greatly varying subject brightness ranges perfectly practical. Photographers using zone system exposure control on roll film should find it possible to give a single processing time that allows higher quality printing on a narrower spread of paper contrast grades. N+ or N- development times are still possible for those zone workers wishing to exercise tight control of tonal contrast, but the need for this is reduced.

During development, the tanning of the Gelatine containing the film emulsion occurs in direct proportion to the varying exposure received by differing areas of the negative – the more the exposure, the more the tanning. This tanning reduces the absorption of developer by the emulsion, and so heavily exposed highlight regions of the negative are automatically restrained in development because fresh developer cannot reach them, whilst development continues in the lesser-exposed shadow areas and with proportionate action across the mid-tones. Halation around heavily exposed areas of images (such as windows in an architectural interior or lights in a nigh-time picture) is especially well controlled.

The oxidation of the solution absorbed into the emulsion during the development and tanning process causes a brown stain to form, again in direct proportion to the level of exposure in each part of the negative. This stain acts as printing density, and the negative will therefore print with much more body than likely. The effect of the stain differs, however, when printing on different types of paper.
On graded paper the stain acts as printing density, making the negative effectively contrasty than visual inspection might suggest. Highlight texture details are brightened. On VC paper the stain does not have quite the same printing density, and so Highlights will be restrained more.
Because the stain occurs in the Gelatine *between* the clumped grains of silver in the negative, and since the stain acts as printing density, the effect is to fill and mask the spaces between the silver clumps when printing. The result is a smooth tonality, which renders delicate highlights such as mist with an almost 'liquid' reality. The stain is also an aid to smoother scans for photographers using digital techniques. The tanning in *Exactol Lux* is not as extreme as that with *DiXactol Ultra*, but is still excellent.

CAUTION

Keep chemicals out of the reach of children or pets. Solution A contains Catechol. With both solution A and B avoid contact with the eyes and skin. Wash off any splashes from the skin with clean water. In case of contact with eyes, rinse quickly with water and seek immediate medical advice. May be harmful by inhalation or if swallowed. In case of ingestion seek urgent medical advice. The solution can stain. Do not hand process in dishes without the use of gloves. This developer is sensitive to water quality, and we always recommend the use of distilled or deionized water.

WORKING LIFE AND CAPACITY

The developer has an exceptional working life – much longer than conventional developers. The use of an inert gas spray in the 'A' bottle after each use will prolong it even further. Concentrate A is a pale straw color when fresh and discolors to a distinct pinky green hue when deteriorating. Concentrate B is clear when fresh, but it may be slightly cloudy – it is a saturated solution. The life of concentrate A should not be less than 6 months in reasonably cool conditions, but do not refrigerate. Concentrate B does not deteriorate at all to any extent. One 100ml pack is sufficient to process a minimum of 33 rolls of 35mm film, or 40 rolls of 120 films if they are loaded two to a spiral. One liter of working solution will process 160 square inches of film**.**

EXPOSURE

Use at or just below the makers rated speed (example EI 320 for EI 400). Because of the added printing density of the stain, the usual Zone System cut in speed needed for fine negatives with proper shadow detail is completely unnecessary. For finest quality prints, carry out simple tests for true film speed with your equipment and expose using Zone System principles.

DEVELOPING – ONE SHOT/SMALL TANKS

Development is carried out at 21degrees C. Give the film a pre-soak in water of the correct temperature. This is to stabilize the tank/film to the correct processing temperature. The pre-soak water will remove any anti-halation dyes in 120/220 films. Measure out 1ml of concentrate A for each 100 ml of water needed to cover the spiral. Just before pouring the developer into the tank add 1 ml of concentrate B per 100 ml of water to the developer. This solution will begin to change color immediately. Pour into the tank and agitate once by inversion, then rap the tank base on a hard surface to dislodge any air bells, and continue to agitate, using a gentle inversion/twisting action for the first 30 seconds. Thereafter agitate once every 30 seconds until development time is complete. Pour off the developer at the end of the time. The developer will now be a darker brown color. **DO NOT USE AN ACID STOP**. Use either four or five clean water rinses or our alkaline stop bath. To ensure best results and best possible stain, fix in an alkaline fixer. (You *can* use an acid fix, but stain will be affected.) It is not necessary to give the film an after-soak in used developer – this merely adds general fog/stain over the whole film. Wash the film. With alkaline fixers, the film will be washed to archival standards in four minutes, but you may wash for longer if you like. Give a final rinse in water with wetting agent, squeegee or not to choice, and hang in a dust-free atmosphere to dry.

DEVELOPMENT TIMES

Fine-tune these times to suit your equipment and technique. If your negatives consistently have burned out highlights, cut development time a little; if the highlights are flat, increase development time a little. Obviously you should not process important films until you have carried out trials of this kind.
For printing on graded paper use a normal (N) time of about 7 minutes; for VC paper use 8 minutes. For high subject brightness ranges (e.g. bright directional sun with sharp-edged shadows) cut time by about 20% and reduce film speed by half a stop; for low subject brightness range (e.g. light from overhead from an overcast gray sky when the picture has no sky in the frame) increase development by 25%. Zone workers should conduct their own usual film speed and development time tests.

DEVELOPING – ROTARY TANKS

This is carried out at 21 degrees C in the same way as development in small tanks. No special precautions are necessary. Times are reduced by about 25% on those quoted for small tanks.

PUSH PROCESSING

Push processing is not recommended. *Exactol Lux* is very suitable for use with ultra-fast films such as Delta and T-Max 3200, but not to push their speed. For push-processing use *DiLuxol Vitesse,* which is designed for speed increase.