

PHOTOGRAPHERS' FORMULARY INC.

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PRESCYSOL®

Prescysol® is a specially formulated developer unsurpassed in its ability to provide superb negatives with extremely fine grain, remarkably high sharpness, smoothly gradated tones and delicate and translucent highlights. *Prescysol*® yields full film speed; you can expose at the makers recommended ISO. *Prescysol*® is a tanning and staining developer. As the developer is absorbed, the emulsion is tanned, or hardened, and this hardening is variable, being greater in areas of greater exposure. As the emulsion tans, it inhibits the absorption of further amounts of the developing agent, and so development in these highlight areas is restrained. The lower tanning action in the shadow areas allows development to continue and these areas continue to build, producing negatives with rich, deep shadows, beautifully gradated mid-tones, and delicate highlights. Negatives developed in *Prescysol*® particularly using the partial stand method, will yield full speed, exhibit high acutance, and will need considerably less burning-in to areas such as skies. As development proceeds, oxidation and natural by-products of the process stain the emulsion brown, the staining being proportional to the exposure level of the various parts of the negative. The result is a continuously-variable mask of printing density across the tonal range of the negative. Further, as the emulsion is stained mostly *between* the silver grains the effect is to soften the grain and so produce a smoother tonality in large areas such as sky and mist, where grain can normally be such a problem. *Prescysol*® is an extremely tolerant developer; films of different make and speed can be developed together at the same time. For example, HP5 400 (120 roll film) and Delta 100 (35mm) despite being of totally different grain structure, can be developed together in the same tank for the same time. In fact, the modern tabular grain films (which require closer control of times and temperatures in normal developers and are more susceptible to burned highlights and blocked shadows) will benefit enormously from being developed in *Prescysol*® yielding the fine grain, tone and acutance of which these films are capable.

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MIXING/CAPACITY

Prescysol® is supplied as two concentrates which are diluted and mixed for use; a 100ml bottle of part A and a 500ml bottle of part B. This quantity is sufficient for up to 33 rolls of 35mm film, or 40 rolls of 120 film (if the 120 film is loaded two rolls to a spiral).

When fresh, part A will have a very light brown colour, and will go very dark brown as it deteriorates. Do not use it if it has gone dark brown. It will keep, in the bottle supplied and if an anti-oxidation spray has been used, for at least six months. If you wish to keep it longer, it is best to decant it into a brown glass bottle and use an anti-oxidation spray. Always store part A away from light. Part B is a clear liquid, and will keep indefinitely in the bottle supplied.

DEVELOPING - SINGLE BATH, NORMAL AGITATION

All development is carried out at 24 degrees C in small tanks. We recommend that you pre-soak the film for five minutes in water at the same temperature. With 120 roll film this soak will also remove the anti-halation dyes from the film. **Prescysol**® is mixed in the proportions of 1+5+100. So for each reel of 35mm film mix 3ml part A, 15ml part B and 300ml water, and for each reel of 120 film, regardless of whether you have one or two films loaded on the reel, you mix 5ml part A with 25ml part B and 500ml water. [Note: in all cases we strongly recommend the use of distilled water. Tap water has too many additives, pH varies, and consistent, streak free negatives can not be guaranteed with tap water] Tap water can be used to mix the stop and fixer. Pour the measured amount of water, at 24 degrees, into a clean container, and add the requisite amount of part A. Measure out and add part B. Pour out the pre-soak, and pour the developer into the tank. As part B is added, the developer may start to darken and this is quite normal. Agitate continuously for the first 60 seconds, and then for 10 seconds every 30 seconds thereafter. (Agitation should not be too vigorous; a gentle inversion followed by a slight 'swirl', turned upright and 'swirled' again is sufficient. Two such manoeuvres every 30 seconds is ideal. The 'swirl' is a slight rotary movement of the drum sufficient to induce a *small* sideways movement in the liquid. (This is to break up laminar flow and so prevent bromide drag - the streaking that results in all development if progressively exhausted developer is allowed to follow one path repeatedly) Development times are remarkably consistent for all films; 8 minutes is a good starting point and will produce extremely easily-printable negatives. 10 seconds before the elapsed time start to pour out the developer.

The after-soak in used developer needed by other staining developers is not required with **Prescysol**®, and as this is one-shot, you can discard it. The used developer will normally be a much darker colour at this point. **DO NOT USE AN ACID STOP**. Staining developers work best in an alkaline environment, and an acid stop bath will reduce the stain. (Read my notes on my website www.monochromephotography.com) Four or five, 10 second rinses in fresh water is ok, or you can use our **Alkali-STOP**®.

We recommend using freshly-mixed fixer, and our own **Alkali-FIX**® is specially formulated to enhance the staining characteristics of **Prescysol**®. Fix for 5 minutes, then check the film. If there is any slight cloudiness, place the film back in the fixer until it clears. Tanning developers need longer fixing times than conventional developers. A running water wash is always better, but beware of suspended particles in the water; always use a filter. There is absolutely no requirement for the use of hypo-clearing agents when using alkali fixes, and they should not be used. If you have used **Alkali-FIX**® a four minute wash is ample, otherwise wash as recommended by the maker of the fixer used.

If you are using tabular grain films, e.g. T-Max, and an acid fixer, **DO NOT** extend the fixing time in an effort to dissolve the extra dye used in these films. Simply let the film sit in 3 x 5 minute water baths after fixing and before washing. Any residual dye not cleared by these baths will be cleared by a short extension to the washing time. Use of a wetting agent is by choice, and hang to dry.

DEVELOPING - SINGLE BATH, PARTIAL STAND AGITATION

This is our recommended method of development. Negatives developed using the partial stand method will show smoother grain, higher acutance (apparent sharpness) and hold more highlight detail, meaning easier printing, than the 'normal' method. The dilutions, mixing and temperatures are the same as for the normal agitation method. Pour in the developer and agitate continuously for the first 60 seconds, then for 10 seconds every 3 minutes. Allow the tank to stand undisturbed between agitations. Starting time is 10.5 minutes. There will be a longer stand time at the end; that is ok. The rest of the procedure is as for normal agitation. As always, we recommend that for *ultimate* control and results that you perform standard tests to discern your personal film speed and development times. However, **Prescysol**® is so forgiving and tolerant that using the makers ISO and following our instructions will yield superb negatives for the vast majority of applications, and far better than any normal developer.

FOR ANSWERS TO QUESTIONS ON THE USE OF PRESCYSOL® DEVELOPER, PLEASE CALL US AT 406-754-2891

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