



CELER-REVERSER

600ml Kit

CELER-REVERSER Instructions and Formulation are a major revision for optimum results modern films.

Check that you follow the instructions, and read the "Trouble-Shooting" section before reaching hasty conclusions. Nearly all problems arise from the use of small tanks with the wrong sort of agitation.

MIXING

DEVELOPER Dissolve the 2 packs TOGETHER in about 500 ml cold tap water. Stir gently until dissolved & add more water to make 600 ml.

BLIX A & B Each of these solutions is made to just 500ml. Only small portions are needed for each film.

PART A. Dissolve contents in 500 ml cold water.

PART B. Empty contents straight into a glass stock bottle, add about 400 ml of lukewarm water, swirl occasionally for 30 minutes, then add more water to make 500 ml.

PROCESSING

The **DEVELOPER** is used for both the 1st and 2nd developing stages and for subsequent films.

The **BLIX** has to be prepared in two stages from the concentrates. Make sure that you mix the first part before starting the first film development. **Working BLIX** is used once and then discarded.

All processing is carried out at 20°C, including all washes. Drying temperature should also be at 20°C, but temperatures can be increased slowly if time is critical.

STEP 1 - FIRST DEVELOPMENT Do not presoak film. Fill tank quickly. Tap hard to dislodge air bells, invert tank every 2 seconds for 30 seconds, then once every 10 seconds. On completion return developer to stock bottle.

STEP 2 – WASH Rapidly fill tank with water at 20°C and agitate continuously for 30 seconds, then empty. Repeat twice more.

STEP 3 – BLIX This is a critical step. **BEFORE YOU START PROCESSING** mix **BLIX A** with water according this Table, so that the final volume when Blix B is added just covers the film reel.

Only add the required amount of **BLIX B** just as you are about to use the mixture - it starts decomposing on mixing.

BLIX A +	WATER	then add BLIX B - to make	WORKING BLIX
60ml	265ml	75ml	400ml
70ml	340ml	90ml	500ml
80ml	420ml	100ml	600ml

Pour in this **WORKING BLIX** and invert tank vigorously EVERY 2 seconds for the recommended time. **Agitation more than normal for negatives is absolutely essential.** Discard Blix.

STEP 4 – WASH Another critical step. Do not under-wash. Fill tank and wash for 30 seconds as Step 2. Repeat 5 times then refill the tank one more time, open tank, remove the lid, and leave film under water, exposed to strong room lighting for several minutes. Time for a break !

STEP 5 - RE-EXPOSURE Film gets enough re-exposure in 5 minutes direct sunlight or a properly shielded fluorescent light, (never a naked light bulb). Rotate the spiral occasionally, turning the reel over to expose both sides, lifting out of the tank during a final two rinses with clean water. Six flashes each side from a flashgun is an excellent alternative way of re-exposing film.

STEP 6 - SECOND DEVELOPMENT Leave lid off tank, refill with developer and agitate by raising and lowering the spiral every 20 seconds. When complete, return the developer to the stock bottle.

STEP 7 – WASH 5 x 30 seconds washes, then 1 of 60 seconds after adding a small drop of **BLIX A** and a drop of detergent. Use pure water for the final wash if drying marks are a problem.

STEP 8 – DRYING Handle with care as the emulsion is still very fragile. Hang film in a dust free area at about 20°C. **DO NOT SQUEEGEE.**

FINALLY Cut and mount slides for projection.

CAPACITY

Process up to 4 films per kit with no change in processing times. Preferably, use CELER-REVERSER as a one-shot process in a single session for 1 to 4 films.

Over 4 full-sized films (36exp 35mm or 120) use a 10% increase in first development time and a 50% increase in second development times. Blix times do not change. More than 6 films per kit is experimental.

TROUBLE SHOOTING

Provided the instructions have been followed, bright transparencies should be produced. Remember, it is not possible to take the same liberties with films when used as a negative. Here are the most common problems.

EXPOSURE Exposure is extremely critical. Always carry out your own tests using the Table as a guide, bracketing exposures to establish the Exposure Index that best suits your photographic style.

FILM Older-style emulsions Agfa Ortho 25 and some of Eastern Bloc origin, soften too much and may strip off in processing. Always check a new film, particularly a new "version" of an old favourite before processing anything important. Process only one film at a time for consistency.

TANK Older tanks with black spirals are a problem when re-exposing the film. Use one of the recommended re-exposure methods. Processing conditions are also highly critical, and largely controlled by the tank design. Wherever possible, use stainless steel tanks, the 'Dunk & Dip' scheme, or a rotary or other processor designed for the job. It is very important that conventional tanks for a full-length 35mm or 120 film contain at least 400ml of liquid to avoid veiled highlights, and the tank can be inverted without leaking.

AGITATION Correct agitation is essential. Be consistent, and exactly as specified. Washing must be thorough & vigorous agitation for at least the recommended times. Set aside enough time.

LOW DENSITY

The faulty slide can be intensified or toned. You have a choice for future films, either

- Under-expose (ie, Increase film EI in camera), or,
- Decrease first development (known as "pulling").

TOO DENSE The faulty slide can be reduced. The safest way is with extremely dilute Farmers Reducer. Your choice for future films, is :-

- Over-expose (ie, decrease film EI in camera), or
- Increase 1st development (known as "pushing").

MUDDY HIGHLIGHTS Usually seen because the film is unsuitable for reversal. The Table offers a wide enough range for most purposes.

If muddy highlights are found with one of the recommended films, this is usually caused by too little agitation in the blix, or not enough washing afterwards. Vigorous agitation of the blix and complete washing out afterwards are really important. You can check this by inspecting the (fogged) film leader (the bit out of the cassette, when loaded into the camera). This should be completely blank/clear. If it is muddy or streaky, like your highlights, revise your blix agitation and washing techniques to be more vigorous.

NEGATIVES

CELER-REVERSER is a speed increasing negative developer, which can be used just like any other negative developer. Films can be uprated by using the ISO ratings and First Development times in the Table, and finishing conventionally. This is particularly useful when the film is known to be underexposed and any slides made from it would be too dense. Instead of finishing as a slide, try this alternative :-

- 1 Examine the film at Step 2. It is quite safe to do this ! If you have any doubts about exposing the film to light, just add a drop or two of BLIX A only (NO BLIX B) to the final wash, a very effective stop bath.
- 2 Remove any frames too underexposed for reversal. (Frames which look OK can be reversed by blixing and carrying on from there)
- 3 Fix the frame or frames in any normal fixer.
- 4 Finish as a normal negative. Print on paper or copy onto a high contrast film, such as Tech. Pan, to make a slide.

STORAGE

NEVER RE-USE A FOOD CONTAINER. Buy proper glass bottles from a Pharmacy. Label each bottle. Use only well stoppered CLEAR glass bottles, NEVER plastics. A very important part of the process. Fresh, unused solutions keep for several months in full glass bottles, in a cool and dark place. Run tests before processing anything important.

DEVELOPER This gradually turns a yellow colour, but remains usable provided the bottle is unopened. Leave bottles of part-used developer in normal room lighting for a few hours, then filter/decant out the sludge before re-bottling for longer-term storage, up to a month.

BLIX Do not attempt to filter either Blix Solution.
Discard Blix A if mould forms or the liquid goes "cloudy".
Discard Blix B if a heavy sludge forms.

ARTISTIC EFFECTS

SPEED INCREASING Film speeds cannot be increased in the true sense. Emulsion has to be stripped out by the solvent in the first development and the trade-off is poor contrast. This explains why some (normally) fast films (exposed and processed normally - as negatives) perform badly in the Table. If the film is known to be underexposed, the following "dodge" can recover a difficult situation. To do this you have to have a good look at the film, just after the thorough washing after the blixing. The best way of doing this is to consider it part of the second exposure, at STEP 5, just before the SECOND DEVELOPMENT.
PRACTICE ON SOMETHING UNIMPORTANT FIRST.
Cut out only those frames needing treatment. Any frames looking good can be finished as normal. Start by diluting any non-hardening fixer from its normal working strength a further 1 + 10.

SUGGESTED PROCESSING

FILM	EXPOSURE	1st DEV	BLIX	2nd DEV	COMMENTS
	ISO	min.	min.	min.	
Pan F/Pan F+	200	5	3	3	Recommended.
FP4/FP4+	400	5	3	4	Recommended.
HP5/HP5+	500	5	5	5	"Gritty."
Agfa Pan 100	400	4	4	4	Good.
Neopan 400	1000	6	4	5	Good.
Plus X	400	4	3	4	Recommended.
Tri X	1000	5	5	5	Good.
Tech. Pan 2415	50	3	3	3	Recommended for "punchy" slides.
T-Max 100	250	6	4	5	Good contrast.
T-Max 400	400	6	4	5	"Gritty."
T-Max 3200	1600	6	4	6	Interesting !
OTHER FILMS - Start with :-	Maker's	4	4	5	Good use for out-of-date materials.

Select the Exposure Index which gives your photographic style the best results.
The Table is only a suggested starting point, particularly as old favourites such as Technical Pan have effectively vanished from the marketplace.

Immerse the frames in it and agitate continuously. Watch very carefully. When highlights are very nearly cleared, STOP. Never attempt to clear the emulsion too quickly. Aim for about 5 minutes. Do not risk overshooting and lose the whole picture. Finally, wash the strip, and continue with the **SECOND DEVELOPMENT, Step 6.**

TONING SPEEDIBREWS TONERS can be used on the final slide, just like a print. Artistic colour transparencies can also be made by the usual Split-toning techniques. It is also possible to use a sepia toner instead of the SECOND EXPOSURE and SECOND DEVELOPMENT Steps.

When the film has been thoroughly washed after blixing, just dunk in SPEEDISEPIA until "cooked". Most films give nice dark sepia slides, & SPEEDIBREWS YELLOW TONER an "Olde-Worldy" or golden hue.

PSEUDO SOLARISATION

Stopping blixing early or incomplete washing forms a negative superimposed upon the positive image. Combined with toning, the effect can be very artistic, resembling tone separations, solarisation and other phenomena.

– Pictures which would otherwise be regarded as failures can be given a new lease of life by inspection at Step 3 and then deciding to vary the Blix times and stop it early.

– Similarly, incomplete washing after blixing. A positive image is formed on second development.

This is often a different colour, enhanced in toners.

CAUTION

All chemicals are toxic if abused. Do not eat, drink or smoke whilst handling and avoid contact with the eyes. In the event of accidental skin contact, immediately flush with plenty of running water; for eyes flush for at least 15 minutes; if any material is accidentally ingested, drink plenty of water or milk.

For accidental eye contact or ingestion SEEK IMMEDIATE MEDICAL ATTENTION. Give the following information :

DEVELOPER Alkaline solution of phenidone;
BLIX A Food acid;
BLIX B Acidified potassium permanganate.

DISPOSAL

– A sense of proportion is needed in respecting the environment. This kit is not an industrial product and will only be used occasionally.

– Flush down a sink with plenty of wash water. The biodegradable ingredients are less sewage load than the material you, as an individual, excrete and flush down the toilet each day !

– This kit complies with recent Packaging Legislation. It uses a minimum of materials for more efficient disposal or recycling. Dispose of empty vessels responsibly.

Patent Applied for.

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