

Chemicals processing instruction

It is important to follow good laboratory practice while processing. Wipe up any spillage as soon as it occurs and use the polythene gloves. The working temperature of all chemical solutions described below should be **20 ± 2°C**.

1. Chemistry preparation

First of all you will need to prepare the developing and bleaching solutions. After preparation you can store these solutions in the closed glass bottles for three days. The receipts below are given for 1 litre of each solution. In one litre of ready developer there is possible to process 100 sheets of the PFG-01 (or VRP-M) film (sheet's dimensions 102x127mm). If you are expecting to process less film in one session, please reduce the quantity of the chemicals accordingly. Totally there will be enough ready developer and bleach to develop ~1 square meter of materials.

CHEMICAL	Pouch no.	FORMULA	Quantity supplied	Chemicals diluting order
Developer SM-6 (1 litre)				
Sodium Hydroxide	11	NaOH	12.0 grams	1
Phenidone	12	C ₆ H ₅ -C ₃ H ₅ N ₂ O	6.0 grams	2
Ascorbic Acid	13	CH ₂ OHCHOH (CHCOH:COHCOO)	18.0 grams	3
Sodium Phosphate (dibasic)	14	Na ₂ HPO ₄	71.6 grams	4
Water (distilled)		H ₂ O	to 1.0 Litre	
Bleach PBU-Amidol (1 litre)				
Potassium Persulphate	021	K ₂ S ₂ O ₈	10.0 grams	1
Citric Acid	022	HOC(COOH)(CH ₂ COOH) ₂	50.0 grams	2
Cupric Bromide	023	CuBr ₂	1.0 gram	3
Potassium Bromide	024	KBr	20.0 grams	4
Amidol	025	(NH ₂) ₂ C ₆ H ₃ OH•2HCl	1.0 gram	5
Water (distilled)		H ₂ O	to 1.0 Litre	

For each solution preparation take ~0,6 litre of distilled water at the temperature of ~45°C. Dilute chemicals in the order given above. Add distilled water to obtain 1 litre of each solution.

2. Prepared solutions storage

The developer's solution remains developing properties while stored in dark room conditions for three days. Bleaching solution can be stored in dark room conditions for about one month.

Processing even one film in the developing and bleaching solutions noticeably reduce their lifetime.

All solutions should be stored in the closed glass or non-active plastic bottles in a room temperature and darkness.



3. Processing of the exposed film

- 3.1. Fill the separate development trays with the developer, bleach and distilled water for washing (two trays for water).
- 3.2. Switch the room lights off and the safelight on.
- 3.3. Put the exposed film into the developing tray (containing SM-6 developer) with its concave (emulsion) side towards the inside.
- 3.4. Agitate the developer for 2 minutes (or until density 1.5). Film should become dark.
- 3.5. Put the developed film in the one of the trays filled with distilled water and agitate it for 2 minutes for wash out the developer.
- 3.6. Switch the room lights on, as the film is no longer sensitive to light
- 3.7. Put the developed and washed film in the tray containing the bleach and agitate it for 2-3 minutes, until the film turns from the dark to clear. After the film becomes clear, agitate it in bleach for 2 minutes more.
- 3.8. Put the bleached film in the another tray with distilled water and agitate for 5 minutes to wash out the bleach.
- 3.9. Put the washed film in the another tray with distilled water with wetting agent (Agepon) and agitate for 1 minute (simple way to prepare water with wetting agent is to put just one drop of commercially available dish washing cleaner (such as Fairy, or similar)).
- 3.10. Place the film, emulsion side up on the absorbent mat. Carefully wipe water from the emulsion surface using a folded tissue. Turn the film over and wipe the film base side. Turn the film over again and wipe the emulsion with a fresh tissue. Ensure that no water drops remain on the film.
- 3.11. Now you can dry the film in two ways:
 - hang it and wait till it will dry up,
 - use a hair drier and dry it quicker. For that hold the film in the palm of your hand emulsion side up and dry it with a hair drier (maximum setting 1KW) placed about 30cm away. This should take about 1 minute. (Note that hot film will have a different replay colour than that at the room temperature

Good luck!

After all, If you have any questions, comments or troubles please visit our website at <http://www.geola.com> or contact us by e-mail info@geola.com.