

Ready to Use Anatomix Developer and X-Fix Fixer

I. SYSTEM DESCRIPTION

Anatomix RTU Developer- Replenisher is formulated for use in table-top automatic processing machines

Anatomix RTU Developer is used both as a tank solution and as replenisher solution. The use of starter is optional, see mixing instructions below.

X-Fix RTU Fixer is the companion of **Anatomix RTU Developer**.

II. PRODUCT DESCRIPTION

Product	Temperature	Replenishment Rate *
Developer	30°C - 35°C	600 ml/m ²
Fixer	20°C - 30°C	700 ml/m ²

- * These rates may vary depending upon :
1. The amount of films processed daily
 2. The particular developer temperature chosen
 3. The size of the films being used
 4. The degree of image produced

EXAMPLE :

Quantity of films per day (18 x 24 cm)	Developer	Fixer
0 - 10	35 ml/film	35 ml/film
11 - 25	30 ml/film	32 ml/film
26 - 50	25 ml/film	30 ml/film

III. MIXING INSTRUCTIONS

Do not dilute! **Anatomix RTU Developer** and **X-Fix RTU Fixer** are ready to use solutions.

Tank solution Anatomix RTU Developer tank solution can be prepared using Anatomix Starter

	Developer	Replenisher
Anatomix RTU Developer Replenisher	981 ml	1000 ml
Anatomix Developer Starter	19 ml	
Makes	1000 ml	1000 ml

IV. pH AND DENSITY SPECIFICATIONS

	pH (25 °C)	Density (20 °C) g/cm³
Developer	10.35 ± 0.05	1.076 ± 0.005
Developer Replenisher	10.85 ± 0.05	1.080 ± 0.005
Fixer	4.50 ± 0.05	1.093 ± 0.005

V. FILM WASHING

Ensure adequate washing of films is achieved by adhering to processor manufacturer's recommendations.

VI. BIOLOGICAL GROWTH IN WASH TANK

Open wash system

It is not usual for biological growth to be found in well-maintained processors with open wash systems and adequate wash water flow rates (1 - 3 litres/minute). If problems are experienced it is best to first have an examination of the water quality and supply system, carried out by a specialist company.

Various biocides compatible with photographic processors are available. FUJIFILM **Algstop LR** is very effective in preventing algae growth during shutdown periods. It is only necessary to add 1 ml of **Algstop LR** concentrate for each litre of wash water capacity to the wash tank at the end of a processing session.

Use biocides safely. Always read the label and product information before use !

VII. TROUBLESHOOTING GUIDE

Problem	Possible Cause	Action to be taken
Light Image.	<ol style="list-style-type: none">1. Developer temperature too low.2. Under replenishment of developer.3. Exhausted developer.4. Developer contaminated by fixer.5. Over diluted developer.6. Weak or insufficient exposure.7. Processing time too short.8. Too much starter.	<ol style="list-style-type: none">1. Check the temperature with a thermometer and adjust setting.2. Check replenishment pumps & settings and adjust accordingly.3. Make new fresh solution.4. Check mixing procedures - if needed make new fresh solution.5. Do not dilute! - if needed make new fresh solution.6. Check equipment used for exposure.7. Check speed of processor and adjust it if required.8. Check mixing procedures - make new solution.
Light Image (sudden effect).	Developer contamination* by fixer.	Check mixing procedures - make new developer solution.
Image too dense.	<ol style="list-style-type: none">1. Developer temperature too high.2. Over replenishment of developer.3. Processing time too long.4. Overexposed film.5. Insufficient amount of starter.	<ol style="list-style-type: none">1. Check the temperature with a thermometer and adjust settings.2. Check replenishment rates, pumps & settings and adjust accordingly.3. Check speed of processor and adjust accordingly.4. Check equipment used for exposure.5. Check mixing procedures - make new solution.

Problem	Possible Cause	Action to be taken
Fogged film.	<ol style="list-style-type: none"> 1. Unsuitable darkroom light. 2. Light leak into darkroom. 	<ol style="list-style-type: none"> 1. Follow film manufacturer's recommendations. Safety light must be at distance of 1,2 m min. Check if light bulb is of the correct type. 2. Examine darkroom for light leaks.
Mottles.	Developer rollers are excessively worn or damaged.	Change rollers if thorough cleaning proves to be insufficient.
Film does not dry.	<ol style="list-style-type: none"> 1. Drying temperature too low. 2. Wash-water flow too low. 3. Ineffective fixer. 4. Relative humidity too high. 	<ol style="list-style-type: none"> 1. Check temperature and raise it if necessary. 2. Check flow rate & temperature and adjust to standard. 3. Check replenishment rate and adjust accordingly. 4. Dry the air in working area.
White spots on light areas of film.	<ol style="list-style-type: none"> 1. Fixer temperature too low. 2. Under replenished fixer. 3. Diluted fixer. 4. Insufficient wash. 	<ol style="list-style-type: none"> 1. Check with reliable thermometer and adjust accordingly. 2. Check rate of replenishment and adjust as necessary. 3. Do not dilute the fixer ! 4. Check wash flow rate and increase as required.
Small particles on film.	Dirt in solution.	Check solution circulation, filter and pump.
White transparent spots on films.	<ol style="list-style-type: none"> 1. Spilling or splashing of fixer before processing. 2. Soiled screen. 3. Particles of emulsion lifting from film. 4. Air bubbles between roller and film in developer. 	<ol style="list-style-type: none"> 1. Handle films with care and clean hands. 2. Clean screen. 3. Clean rollers. Check that fixer replenishment rate is sufficient. 4. Check solution circulation, pump and filter.
White or dark half-moon shaped marks on film.	Film has been folded or bent before processing.	Handle film with care, do not bend.
Parallel black & transparent stripes.	Uneven pressure from distorted rollers in the developer section of the processor.	Clean machine thoroughly - have machine manufacturer check rollers.
Dark black marks.	<ol style="list-style-type: none"> 1. Electrostatic discharge. 2. Pressure applied during handling. 	<ol style="list-style-type: none"> 1. Check relative humidity. 2. Handle films smoothly and with care.
Dark or light spots on film (comet shaped).	Splashing of chemicals (fixer or detergents) before processing.	Clean up working & loading areas.
Soiled film after drying.	Drying temperature too high.	Check temperature and adjust it to recommended value.

Problem	Possible Cause	Action to be taken
White layer on film.	<ol style="list-style-type: none"> 1. Wash flow rate too low. 2. Soiled/exhausted fixer bath. 	<ol style="list-style-type: none"> 1. Check flow rate & temperature of wash water - adjust if needed. 2. Check mixing procedure - prepare new fix solution. Check fix replenishment rate.
Yellow stain on film after storage.	Insufficient fixation.	Ensure fixer** replenishment rate is correct.
Scratches on film.	<ol style="list-style-type: none"> 1. Along the entire length of the film. 2. Along the direction of feed of film into processor (often with round areas of higher density). 	<ol style="list-style-type: none"> 1. Guide rails scratching film. Process another film with its long axis at right angles to the direction in which the previous film was processed. This will show whether the scratches occur before loading into processor or during processing. 2. Excessive pressure applied to film by fingers when inserted into feed slot of processor.

* : When filling a processor with developer and fixer solution always mix and install fixer before developer to avoid fixer splashing into developer. Always rinse developer tank and rollers thoroughly with water after installing fixer before installing developer. Use separate mixing tanks.

** : The condition of a fixer can be judged by its silver content. Normally the silver concentration should not exceed 4 g/L. If it is too high this indicates too low a rate of replenishment. Silver concentration can be measured by silver test strips available from various laboratory chemical suppliers or from Merck.

VIII. HANDLING PROCESSING SOLUTIONS

All photographic processing solutions can exert harmful effects when brought into contact with human tissue to a greater or lesser extent depending on the nature of the solution and its concentration. All users of such solutions should exercise the greatest care to avoid the chemicals contacting the skin, eyes or other parts of the body. Always wear resistant gloves and effective eye protection.

In case of accidental contact with processing solutions wash the affected part with plenty of clean cold running water. Wash with an acidic soap and rinse thoroughly with water. Consult a medical doctor. Some photographic solutions produce irritating vapours therefore thorough ventilation is essential. Do not inhale air above processing solutions.

Always read the hazard information on the packs of solution concentrate before attempting to handle the solutions.