

### 5247 Color Film

Type 5247 has a carbon jet backing that must be removed during the Water Wash Step. This is easily done by removing film from reel...hold under running water between thumb and forefinger backing side up...gently rub off with thumb. A photo sponge may be used if you desire. DO NOT RUB EMULSION SURFACE. Initially, your wash water will run black...this is normal. Continue washing until backing is completely removed. Make certain any loose particles are washed free from emulsion surface. If necessary, extend wash time. Because of the backing material and the by-products it liberates, ONE SHOT PROCESSING IS RECOMMENDED. DO NOT PROCESS TYPE 5247 IN SAME SOLUTIONS WITH OTHER FILMS.

### Trouble Shooting

PROBLEM	PROBABLE CAUSE	REMEDY
Thin negatives	<ul style="list-style-type: none"><li>• Low development temperature</li><li>• Under exposure in camera</li><li>• Developer exhausted</li></ul>	Reread and follow all instructions carefully on temperature control, solution, capacity, etc.
Negatives appear more magenta than more normal with higher density near sprocket holes	<ul style="list-style-type: none"><li>• Developer too warm</li><li>• Overly vigorous agitation in conventional tank</li></ul>	Maintain temperature control. Use only agitation methods prescribed.
Black "dirt" specks on negatives which print as white spots.	<ul style="list-style-type: none"><li>• Improperly washed 5247 film</li></ul>	Remove ALL carbon jet backing during final rinse.
Negatives look OK but prints ar a bit too flat.	<ul style="list-style-type: none"><li>• Too little development</li></ul>	Increase development time.
Negatives look OK but loss of highlight and shadow detail.	<ul style="list-style-type: none"><li>• Too much development</li></ul>	Decrease development time.

## Safety Notes

**WARNING** This kit contains chemicals that may be hazardous if misused. Always wear safety glasses, rubber gloves and protective clothing, such as a lab coat or plastic apron, when working with chemicals. While the hazard rating of this kit is low, caution should be exercised. Do not allow children to use this kit without adult supervision.

### DEVELOPER PART A

**Contains: Potassium Carbonate.** May cause irritation. Avoid skin contact. In case of contact, flush with water. *DO NOT ALLOW EYE CONTACT.* In case of eye contact, flush with water for 15 minutes and contact a physician immediately! *DO NOT TAKE INTERNALLY.* **If swallowed, INDUCE VOMITING. Contact a physician immediately!**

### DEVELOPER PART B

**Contains: Hydroxylamine Sulfate.** May cause irritation. Avoid skin contact. In case of contact, flush with water. *DO NOT ALLOW EYE CONTACT.* In case of eye contact, flush with water for 15 minutes and contact a physician immediately! *DO NOT TAKE INTERNALLY.* **If swallowed, INDUCE VOMITING. Contact a physician immediately!**

### DEVELOPER PART C

**Contains: 4-amino-3-methyl-N-(β-hydroxyethyl)-aniline sulfate.** May cause irritation. Avoid skin contact. In case of contact, flush with water. *DO NOT ALLOW EYE CONTACT.* In case of eye contact, flush with water for 15 minutes and contact a physician immediately! *DO NOT TAKE INTERNALLY.* **If swallowed, INDUCE VOMITING. Contact a physician immediately!**

### BLIX PART A

**Contains: Ammonium Thiosulfate.** May cause irritation. Avoid skin contact. In case of contact, flush with water. *DO NOT ALLOW EYE CONTACT.* In case of eye contact, flush with water for 15 minutes and contact a physician immediately! *DO NOT TAKE INTERNALLY.* **If swallowed, INDUCE VOMITING. Contact a physician immediately!**

### BLIX PART B

**Contains: Acetic Acid.** May cause burns. Avoid skin contact. In case of contact, flush with water and wash with a non-alkaline soap. *DO NOT ALLOW EYE CONTACT.* In case of eye contact, flush with water for 15 minutes and contact a physician immediately! *DO NOT TAKE INTERNALLY.* **If swallowed, DO NOT INDUCE VOMITING. Contact a physician immediately!**

### BLIX PART C

**Contains: Ethylenediamine Tetraacetic Acid EDTA.** May cause irritation. Avoid skin contact. In case of contact, flush with water. *DO NOT ALLOW EYE CONTACT.* In case of eye contact, flush with water for 15 minutes and contact a physician immediately! *DO NOT TAKE INTERNALLY.* **If swallowed, INDUCE VOMITING. Contact a physician immediately!**

### STABILIZER

**Contains: Hexamine.** May cause irritation. Avoid skin contact. In case of contact, flush with water. *DO NOT ALLOW EYE CONTACT.* In case of eye contact, flush with water for 15 minutes and contact a physician immediately! *DO NOT TAKE INTERNALLY.* **If swallowed, INDUCE VOMITING. Contact a physician immediately!**

SDS (Safety Data Sheets) for this kit are available by written request.

# ARISTA 41

## C-41 PROCESSING Instructions for Quart and Gallon Kits

You may use this kit to process any Kodacolor/Vericolor™, or C-41 compatible film. It will also process Chromogenic B&W films. These instructions will show you how to process the film and how to reuse the chemicals for extended life.

### WARNING

**This kit contains chemicals that may be harmful if misused. Do not allow children to use this kit without adult supervision. Read all safety notes before proceeding.**

### EQUIPMENT NOT INCLUDED IN YOUR KIT

- A stop watch or a darkroom timer.
- A processing tank and reels or a rotary-tube type processor.
- Three empty chemical containers.
- A graduate.
- An accurate thermometer.
- A film squeegee or a soft sponge.
- Temperature control equipment or a large tub to hold warm water.

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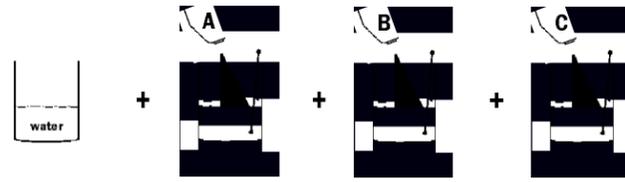
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# Mixing Chemicals †

## Developer

- Place the recommended amount of water\* into a clean glass or plastic container.
- While stirring, add the contents of the bottle marked **Developer Part A**. Stir well.
- While stirring, add the contents of the bottle marked **Developer Part B**. Stir well.
- While stirring, add the contents of the bottle marked **Developer Part C**. Stir well.

\*Water Temperature: 120°F (49°C)



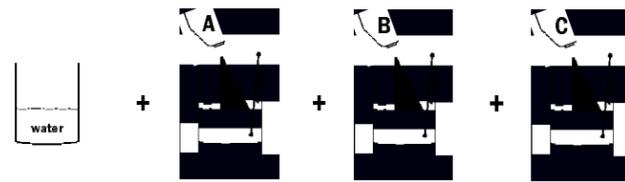
## To make:

1 Quart	20 oz. (591 ml)*	8 oz. (237 ml)	2 oz. (59 ml)	2 oz. (59 ml)
1 Gallon	80 oz. (2.37 liters)	32 oz. (946 ml)	8 oz. (237 ml)	8 oz. (237 ml)

## Blix

- Place the recommended amount of water\* into a clean glass or plastic container.
- While stirring, add the contents of the bottle marked **Blix Part A**. Stir well.
- While stirring, add the contents of the bottle marked **Blix Part B**. Stir well.
- While stirring, add the contents of the bottle marked **Blix Part C**. Stir well.
- The final volume may vary slightly with no adverse effects in processing.

\*Water Temperature: 125°F (51.7°C)

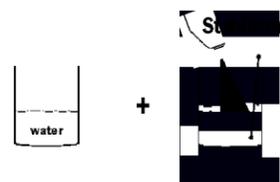


## To make:

1 Quart	18 oz. (532 ml)	8 oz. (237 ml)	2 oz. (59 ml)	4 oz. (118 ml)
1 Gallon	72 oz. (2.13 liters)	32 oz. (946 ml)	8 oz. (236 ml)	16 oz. (473 ml)

\* Water temperature listed will bring room temperature concentrates to (72°F) to 101.5°F for working solution.

## Stabilizer



## To make:

1 Quart	30 oz. (887 ml)	2 oz. (59 ml)
1 Gallon	120 oz. (3.55 liters)	8 oz. (237 ml)

† Final volumes may vary slightly with no adverse effects in processing.

## Mixing Notes

- Smaller amounts of the final working chemical solutions can be mixed, but careful attention must be paid to the mixing ratios.
- Use water at the temperature you want to use to develop your film. This allows for shorter warm-up time.
- Stir continuously while mixing.
- Keep everything very clean. A few drops of Blix, soap or other contaminants can destroy the developers.
- Mark your containers clearly. This will prevent confusion and processing out of order.
- Use safety glasses and rubber gloves while working with chemicals. Also wear a lab coat or other protective clothing. **Do not allow children to use this kit without adult supervision.**

## PROCESSING STEPS FOR HAND TANK OR DIP & DUNK

For use with Arista (or similar) plastic or steel film processing tanks using inversion or agitation wand method. **Tanks should be partially submerged in a hot water bath to insure temperature consistency.**

		TIME	TEMP	AGITATION
Step 1	<b>Pre-Soak</b>	1 min	102°F	None
Step 2	<b>Developer</b>	3.5 min	102°F	Continuous for first 10 sec., then 4 lifts or 4 inversion cycles* every 30 sec. thereafter
Step 3	<b>Blix</b>	6.5 min.	95°F - 105°F	Same as above
THE REMAINING STEPS CAN BE DONE IN ROOM LIGHT WITH THE TANK LID OFF				
Step 4	<b>Wash</b>	3 min.	95°F - 105°F	Running water
Step 5	<b>Stabilizer</b>	½ to 1 min.	Room	Agitate for first 15 sec.
Step 6	<b>Dry</b>	n/a	< 140°F	n/a

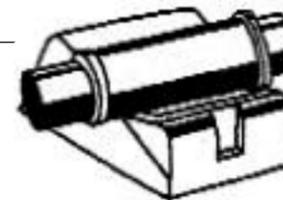
\* 1 inversion cycle = 1 back and forth motion as shown in the graphic at the right



## PROCESSING STEPS FOR ROTARY-TUBE

	75°F	80°F	85°F	90°F	95°F	104°F
<b>Step 1</b>	Completely fill film drum with water.					
Pre-Soak	60 sec.	60 sec.	60 sec.	60 sec.	60 sec.	60 sec.
<b>Step 2</b>	The remaining steps can be done in room light with the tank lid off.					
Developer						
<b>Step 3</b>	The remaining steps can be done in room light with the tank lid off.					
Blix						
<b>Step 4</b>	The remaining steps can be done in room light with the tank lid off.					
Wash						
<b>Step 5</b>	The remaining steps can be done in room light with the tank lid off.					
Stabilizer						
<b>Step 6</b>	The remaining steps can be done in room light with the tank lid off.					
Dry						

\* Recommended time and temperature.



## Chemical Reuse

Using a volume of chemicals once will not destroy its ability to develop film. However, extra time must be added to the processing to compensate for the weaker Developer. Whenever the Developer is reused, add 8% to the development time. For example, you just developed two rolls of film at 104°F. You have several more rolls to process. To process the next two rolls at 104°F, multiply 3.5 (the development time at 104°F) by 1.08.  $3.5 \times 1.08 = 3.78$ , so you process the next two rolls at 104°F for 3.75 minutes. The time for the next two rolls is calculated in a similar manner, except the development time must be increased by 15% above the original developer time.  $3.5 \times 1.15 = 4.025$  or 4 minutes. Use the above formula for the Developer ONLY. Reusing the Blix does not affect the processing time. Best results are obtained when chemicals are used only once.

## Solution Capacities

The solution capacities given in the chart below show how many films we recommend you can reliably process in various quantities of working solutions. If you feel you are interested in extracting more capacity from the solutions, please read the statements under the heading, "More Chemistry Capacity."

FILM SIZE	110 (20 exp.)	126	135 (24 exp.)	135 (36 exp.)	120	220	4 x 5 (sheet)	8 x 10 (sheet)
Rolls or sheets/ 960 ml (32 oz.)	36	16	12	8	8	4	32	8
Rolls or sheets/ 480 ml (16 oz.)	18	8	6	4	4	2	16	4
Rolls or sheets/ 240 ml (8 oz.)	9	4	3	2	2	1	8	2

## MORE CHEMISTRY CAPACITY

You should always be concerned about chemistry life and capacity. It may seem that chemistry manufacturers are arbitrary about the number of films that can be processed before discarding chemicals. This is because manufacturers can only make educated guesses on four different factors affecting longevity: how many films will be processed in freshly mixed chemicals; storage manner and length between processing sessions; if any contaminants are in the water supply or from unintentional chemical intermixing; and, what each user considers acceptable results. All developers begin to exhaust the moment they are mixed, and exhaust faster with the presence of air, contaminants, high temperatures and every time films are processed in the same batch of working solution.

### Here are some observations and recommendations:

- Understanding you are the sole arbiter of acceptable results, it is possible to process 25%, 50%, or even more rolls of film than what is listed in the capacity chart - as long as all processing takes place within several days of mixing the chemicals. The main rule to exercise is to process films until you no longer find the results satisfactory. Results will not usually go drastically from ideal to unusable, the decline is gradual.
- Results are NOT guaranteed**, but it is possible to process more film over a longer period of time. Processing more films than recommended is risky unless you process film every day and monitor the performance of the chemistry. Partially used working solutions left untouched for a week or more can change significantly and you could suffer a drastic loss in the quality of your results. We recommend doing a snip test with a small piece of film before each processing session if you are worried about the state of the chemistry.

## Push Processing

All color negative films suitable for the C-41 process can be underexposed and processed for higher than normal film speeds by extending the development time (push processing). As a rule, pushing should be done only when necessary (i.e. when higher film speed is needed) because negative quality does suffer somewhat. When pushing is required, start with the highest speed film available. In other words, pushing an ASA 100 film two stops to ASA 400 offers no benefit since an ASA 400 film is already available.

When Exposure Change Is:	ASA Speed:	Increase Development Time:
2 stops under	4x normal	1.75x (i.e. 3.5 min. x 1.75 = 6.13 min.)
1 stop under	2x normal	1.30x (i.e. 3.5 min. x 1.30 = 4.55 min.)

## Chromogenic B&W Films

When exposing these films in the range of ASA 100 - 400, use the standard development times given in the time/temperature chart. When exposing these films at ASA 800, increase development time by 40% and, when exposing at ASA 1600, increase development time by 80%. For different times and temperatures consult the film instruction sheet.