



Rollei

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COLORCHEM C-41 KIT

MADE IN GERMANY



OPERATING MANUAL

C-41
PROCESS

GENERAL INFORMATION

For standard processing of C-41 type colour negative films in rotary processors, developing tanks and drums.

Processing can be done at 3 different temperatures:

- standard at 38 °C
- rapid processing at 45 °C
- at 25 °C

Note the safety information and the disposal considerations in the end of this manual.

PACKAGING

Article-No.	Name	For working solution	Contents
RC11K	C-41 KIT	1 litre	Colour developer part A, B, C Bleach-fixer part A, B Stabilizer
RC12K	C-41 KIT	2,5 litres	Colour developer part A, B, C Bleach-fixer part A, B Stabilizer
RC15K	C-41 KIT	5 litres	Colour developer part A, B, C Bleach-fixer part A, B Stabilizer

MIXING INSTRUCTIONS

for 1 Liter of working solution

Bath	ml Water 25 - 40 °C	ml Part A	ml Part B	ml Part C
Colour developer	800	100	50	50
Bleach -fixer	600	200	200	
Stabilizer	950	50		

Always start with water then add concentrates to the water. When mixing more than one part, always mix part A before adding part B.

Partial use of concentrates is possible, but the storage is limited.

Measure the colour developer concentrates very carefully. Even small errors will lead to shifts in the colour balance.

STORAGE OF SOLUTIONS

	Full stoppered bottles	Not full bottles
Colour developer	6 weeks	2 weeks
Bleach and fixing bath,	8 weeks	4 weeks
Stabilizer	8 weeks	
Concentrates:		
	in original full stoppered bottles	2 years
	partially emptied and stored in original bottles	3 months

PROCESSING DATA

Standard processing in rotary processors

Processing bath	Temperature (°C)	Time (min:s)	Remarks
Prewarming	38	4:00	
Colour developer	38 ± 0,3	3:15	
Bleach-fixer	38 ± 2	6:00	
Washing	38 ± 2	3:15	Water should be changed at least 4 times
Stabilizer	20 - 25	1:00	Must be carried out external

Rapid processing in rotary processors

Processing bath	Temperature (°C)	Time (min:s)	Remarks
Prewarming	45	2:00	
Colour developer	45 ± 0,3	2:00	
Bleach-fixer	45 ± 2	5:00	
Washing	45 ± 2	1:00	Water should be changed at least 2 times
Stabilizer	20 - 25	1:00	Must be carried out external

Inversion agitation rhythm:

Invert the tank for the first 15 seconds regularly, then each 30 seconds invert 1 x.

Alternative processing at 25°C

Processing bath	Temperature (°C)	Time (min.:s)	Remarks
Colour developer	25 ± 0,3	13:00	
Bleach-fixer	25 ± 2	8:00	
Washing	20 – 25	6	Water should be changed at least 4 times
Stabilizer	20 - 25	1:00	Must be carried out external

The processing times listed below are measured from the first contact of the film material with the respective bath to the first contact with the following bath or wash.

Drying should not be done at more than 60 °C. Used and fresh solutions should not be mixed with each other in order to avoid contamination.

The tank and the lid as well as the reel should be washed thoroughly with warm water after each processing. All parts of the tank must be absolutely dry before the next processing.

CAPACITY AND UTILIZATION

You can process up to 16 films 135-36 with 1 litre of bathes. Thereby it is necessary to increase the developing time described as follows:

	1 - 4 films	5 - 8 films	9 - 12 films	12 - 16 films
38°C	3:15	3:30	3:45	4:00
45°C	2:00	2:10	2:20	2:30
25°C	13:00	15:00	17:00	19:00

If you have to process high speed films (ISO 400/27° and more) please note that you can only make 3 and not 4 steps.

Bleach-Fixer:

	1 - 4 films	5 - 8 films	9 - 12 films	12 - 16 films
38°C	6:00	6:00	10:00	15:00
45°C	5:00	5:00	*	*
25°C	8:00	8:00	12:00	20:00

* = The bleach-fixer can be reused twice. For additional processes 50% of the bleach-fixer has to be exchanged with fresh solution.

TROUBLESHOOTING

FAULT	Possible Cause	Remedy
Negative too dark	Over-exposure	Check camera and exposure
	Developing time too long	Shorten developing time by 15-30 s
Negative too light	Contamination of the colour developer	Rinse equipment and reel thoroughly
	Under-exposure	Check camera and exposure
	Prewarming of the tank has been omitted	Add a prewarm time of 5 min to the programm
Uneven colour areas, streaks and stripes	Colour developing time too short	Extend developing time by 15-30 s
	Insufficient filling quantity	Check filling amounts
Color fog	At the prewarm time the film is come in contact with water	Tanks and reels must be absolutely dry
	Mixing vessels or processor are not clean. Contamination of developer with another bath	Use individual mixing vessel and mixing rod for each bath
Drying spots on the dry film	Too hard tap water when preparing the stabilizer	Mix tap water with distilled or demineralized water in the proportion 1:2. In addition, use a film wiper.

SAFETY ADVICE

Keep locked up and out of reach of children. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye protection. Avoid release to the environment.

FIRST AID

After eye contact: Rinse opened eye for several minutes under running water (> 15 min). Then consult doctor.

After skin contact: Instantly rinse with water. If skin irritation continues, consult a doctor.

After swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; instantly call for medical help.

DISPOSAL

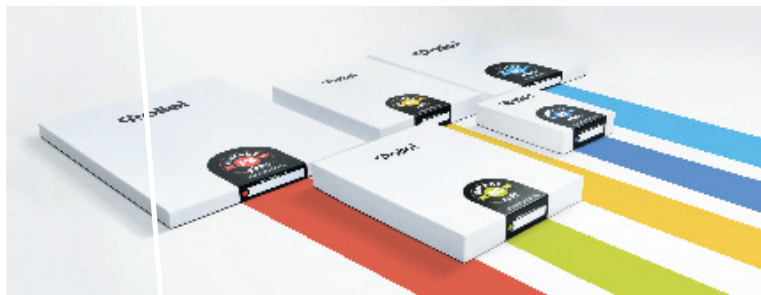
Information on the disposal of photochemicals and used processing solutions can be obtained from the local authorities responsible for environmental protection.

European waste catalogue:

09 01 01 water-based developer and activator solutions

09 01 05 bleach solutions and bleach fixer solutions

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