

#9260 JOB ECN-2 Developing Kit

JOB ECN-2 Developing Kit (2,5 L working solution) is a chemical processing kit for motion color negative film designed for rotary processing. The developing kit should only be used for manual processing if temperature and agitation can be fully controlled. Best results may only be expected with precise temperature control and constant agitation. The processing chemicals are supplied with concentrated solution and in powder to make each processing solution up to 2,5L which allows processing up to 30 rolls of ECN-2 film (135-36exp) in total. JOB ECN-2 Developing Kit combines lower environment load with excellent developing performance.

1. Contents of JOB E-6 Color Positive Developing Kit (2,5L)

Process	Chemicals	Bottles / Pack	Stock solution / powder	Working solution	Capacity
Pre Bath	C1 : PRE BATH	1	300 g x 1	for 2,5 L	30 rolls / 135-36
Color dev.	C2 : CD Part-A	1	500 ml x 1	for 2,5 L	
	C2 : CD Part-B	1	50 ml x 1		
Stop	C3 : STOP BATH	1	100 ml x 1	for 2,5 L	
Bleach	C4 : BL Part-A	1	100 g x 1	for 2,5 L	
	C4 : BL Part-B	1	250 ml x 1		
Fixer	C5 : FX	1	525 ml x 1	for 2,5 L	
Stabilizer	C6 : STB	1	25 ml x 1	for 2,5 L	

- 2,5 l of working solutions can be made by diluting the stock solutions above.
- It is possible to make the needed amount of working solutions by measuring corresponding volume of stock solutions according to the amount of films to be processed.

Please note that:

- The stock solutions of Color developer are divided into Part-A and Part-B bottles.
- The Bleach chemicals are divided into Part-A in powder and Part-B in liquid
- Pre Bath and Bleach chemicals are supplied in powder form.
- The precautions are indicated on each label on bottles or package.

2. How to make working solutions

- Please measure the amount of water accurately and warm up water to 30±5°C before diluting the stock solutions.
- In case working solution needs to be stored for a while, it should be stored in an air-tight bottle in order to avoid oxidization.
- Don't mix chemicals with each other to avoid possible toxic gas and heat from being generated.
- Appropriate results cannot be given even if only a very small amount of other processing solution is contaminated into "First developer solution" or "Color developer solution".
- Please always prepare water amount first. Then pour part 1 into water and mix well (about 30 sec.) before mixing with part 2 (in case of more than 1 part).

How to make 2,5L working solutions

Process	Chemicas	Water		Part-A	Part-B	Total
Pre Bath	C1 : PRE BATH	2450 ml	+	300 g	-	= 2500 ml
Color dev.	C2 : CD	1950 ml	+	500 ml	+ 50 ml	= 2500 ml
Stop	C3 : STOP BATH	2400 ml	+	100 ml	-	= 2500 ml
Bleach	C4 : BL	2200 ml	+	100 g	+ 250 ml	= 2500 ml
Fixer	C5 : FX	1975 ml	+	525 ml	-	= 2500 ml
Stabilizer	C6 : STB	2475 ml	+	25 ml	-	= 2500 ml

- **Pre Bath:** dissolve a pack of Pre Bath chemical (300g of powder) into 2450ml of water to make 2500ml of working solution. Please warm the water up to 35°C if it is difficult to resolve it.
- **Color Developer:** Pour Part-A (500ml) into 1950ml of water and stir to make the solution transparent. Then add a bottle of Part-B (50ml) and stir it to make 2500ml of Color developer working solution.
- **Stop Bath:** pour Stop Bath (100ml) into 2400ml of water and stir it to make 2500ml of working solution.
- **Bleach:** put Part-A (100g) into 2200ml of water and thoroughly stir to dissolve it. Then add Part-B (250ml) and stir it to make 2500ml of Bleach working solution.
- **Fixer:** pour Fixer stock solution (525ml) into 1975ml of water and stir it to make 2500ml of working solution.
- **Stabilizer:** pour Stabilizer stock solution (25ml) into 2475ml of water and softly stir it to make 2500ml of working solution.
- The working solution can be stored in accordance with the instructions 4 below.

How to make 1,25L working solutions

Process	Chemicas	Water		Part-A	Part-B	Total
Pre Bath	C1 : PRE BATH*	2450 ml	+	300 g	-	= 2500 ml
Color dev.	C2 : CD	975 ml	+	250 ml	+ 25 ml	= 1250 ml
Stop	C3 : STOP BATH	1200 ml	+	50 ml	-	= 1250 ml
Bleach	C4 : BL	1100 ml	+	50 g	+ 125 ml	= 1250 ml
Fixer	C5 : FX	988 ml	+	263 ml	-	= 1250 ml
Stabilizer	C6 : STB	1238 ml	+	12,5 ml	-	= 1250 ml

- * please always dissolve the whole amount of Pre Bath powder pack in water to make 2,5L of working solution.
- Required quantities of Stock solutions can be measured to make required volume of working solutions in accordance with the number of films to be processed. However, please always dissolve whole amount of Pre Bath powder pack in water to make 2,5L of working solution because of deviations of powder components in a pack. (Pre Bath working solution can be stored for 24 weeks.)
- It is possible to processes 15 rolls of 135x36EXP films at most with using 1,25L of working solutions. The remaining stock solutions can be stored in the original bottles.

How to make 1L working solutions

Process	Chemicas	Water		Part-A	Part-B	Total
Pre Bath	C1 : PRE BATH*	2450 ml	+	300 g	-	= 2500 ml
Color dev.	C2 : CD	780 ml	+	200 ml	+ 20 ml	= 1000 ml
Stop	C3 : STOP BATH	960 ml	+	40 ml	-	= 1000 ml
Bleach	C4 : BL	880 ml	+	40 g	+ 100 ml	= 1000 ml
Fixer	C5 : FX	790 ml	+	210 ml	-	= 1000 ml
Stabilizer	C6 : STB	990 ml	+	10 ml	-	= 1000 ml

- * please always dissolve whole amount of Pre Bath powder pack in water to make 2,5L of working solution.
- In case small amounts of film are processed, it is possible to make as little working solution as possible. However, please always dissolve the whole amount of Pre Bath powder pack in water to make 2,5L of working solution because of deviations of powder components in a pack. (Pre Bath working solution can be stored for 24 weeks.)
- For instance, the chart above shows to make 1L of working solutions to process up to 12 rolls of 135x35exp film.

- In case you want to process less films, the amount of water and stock solutions can be calculated accordingly, but please note the minimum amount of working solutions that may be required by the processing methods you use.

3. Processing condition (with 1L of working solution, 135-36exp

Process	Chemicals	Temp. (°C)	Times setting & number of films		
			1~4 rolls	5~8 rolls	9~12 rolls
Pre Bath	C1 : PRE BATH	27 ± 1	0'10	0'10	0'10
Rem-Jet removal	tap water	27 ~ 41	Wash with water until water becomes clear		
Color dev.	C2 : CD	41,0 ± 0,2	3'00	3'15	3'30
Stop	C3 : STOP BATH	27 ~ 41	0'30	0'30	0'30
Wash	tap water	27 ~ 41	0'30	0'30	0'30
Bleach	C4 : BL	38 - 41	3'00	3'15	3'30
Wash	tap water	27 ~ 41	1'00	1'00	1'00
Fixer	C5 : FX	38 - 41	2'00	2'00	2'00
Wash	tap water	27 ~ 41	2'00	2'00	2'00
Stabilizer*	C6 : STB	27 ~ 41	0'10	0'10	0'10

- The chart above shows the necessary processing condition in case 1L of working solution is used to process films in rotary processing.
- The JOB ECN-2 Developing Kit has been carefully designed to render perfect results when being used in the JOB CPP-3 processor. The temperature setting of the latest CPP-3 can be adjusted to a processing temperature of 41°C. When the JOB CPP-3 is switched on the start menu will show the firmware version. The firmware version must be Ver 1.34 or later. The start menu reads: JOB CPP-3 VER 1.34. If the firmware on your CPP-3 is older but you wish to use the ECN-2 Developing Kit please contact JOB. (The JOB CPP-Classic can be set to 41°C processing temperature manually.) If your JOB CPE-3 has a serial number higher than 20330-230V or 30340-115V respectively, your CPE-3 can also be set to work at 41°C.
As shown in above chart the high temperature precision is mandatory only for the development step of the Color Developer.
- All following processing steps may also be applied with 41°C, but render the same high quality result if applied within the indicated range of slightly lower temperatures. It is possible to process up to 12 rolls of 135x35exp films with 1L of working solution but the processing times will have to be changed in accordance with the number of films to be processed.
- The developing time needs to be adjusted if a different developing method is being applied.

- Films must be processed in complete darkness until the end of Stop processing (Stop bath).
- The processing times indicated in the chart include 10 sec of the interval time while draining solutions between the process steps
- In case failure is found on film base color, it may be suspected that a small amount of bleach or fixer solution was contaminated into Color developer working solution.
- When the JOBO ECN_2 Developing Kit is being used to process film that has no rem-jet layer some manufacturers still recommend to run the pre bath. Please follow the instructions of your film manufacturer for correct film processing. In any case pre-warming is important to bring film, reels and tank to the critical working temperature required for the color developer.
- *PLEASE NOTE:** We strongly recommend to apply the stabilizer bath outside the rotary processor in a separate tray. The stabilizer does not require rotary processing or other agitation as long as the whole film is being immersed. In case stabilizer comes into contact with drum or reels, these must immediately be thoroughly cleaned with water. The stabilizer should NEVER be poured into the Lift for use in the processor!

4. Storage Condition

Process	Chemicals	Stock solution in bottles opened once	Working solution
Pre Bath	C1 : PRE BATH	-	24 weeks
Color dev.	C2 : CD	12 weeks	1 week
Stop	C3 : STOP BATH	24 weeks	24 weeks
Bleach	C4 : BL	24 weeks	1 week
Fixer	C5 : FX	24 weeks	24 weeks
Stabilizer	C6 : STB	24 weeks	24 weeks

- Chemistry must NEVER reach minus temperatures (in °C).**
To ensure perfect working quality the temperature must always remain between 5°C and 30°C during storage and transportation.
- Once the original bottles have been opened, please store the stock solutions in the original bottles in a dark and cool place.

5. Disposal

Please contact your local government authorities on the appropriate disposal of used or remaining chemistry. Immediately rinse completely emptied chemistry containers while mixing the last kit of chemistry so that plastic bottles can be recycled or re-used.

6. Safety precautions

Keep chemistry out of reach of children. In case chemistry comes into eye contact, please rinse with water. In case of symptoms please contact your doctor.

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