

COLOR NEGATIVE FILM DEVELOPING KIT

ILFOCOLOR C-41 Negative Developing Kit (2.5L working solution) is the chemical processing kit for color negative films designed to be suitable for the rotary processor, reel tank and deep tank processing.

All the processing chemical is concentrated solution to make max of 2.5L working solution which allows process up to 40 rolls of film (135-36exp or 120 films). ILFOCOLOR C-41 Kit with the lower environment load provide with excellent developing performance.

1. ILFOCOLOR C-41 2.5L kit contents

| Process | Chemical names | Bottles | Stock solution | Working solution | Capacity | | |
|------------|----------------|---------|----------------|------------------|----------------|--|--|
| | N1 : CD Part-A | 1 | 250ml x1 | | | | |
| Color dev. | N1 : CD Part-B | 1 | 100ml x1 | For 2.5L | | | |
| | N1 : CD Part-C | 1 | 25ml x1 | | 40rolls/ | | |
| Bleach | N2 : BL | 2 | 625ml x2 | For 2.5L | 135-36exp, 120 | | |
| Fixer | N3 : FX | 1 | 525ml x1 | For 2.5L | | | |
| Stabilizer | N4 : STB | 1 | 25ml x1 | For 2.5L | | | |

- 2.5L of working solutions can be made by diluting the stock solutions above.
- It is possible to make needed amount of working solutions by measuring necessary volume of stock solutions according to the amount of films to be processed.

Please note that

- The stock solution of N1: CD bottles are divided into Part-A, Part-B and Part-C bottles.
- 625mlx2 bottles of N2: BL stock solution are packed in a kit.
- The precautions are indicated on each label on bottles or package.

2. How to make working solutions

- Notes
- Please measure the amount of water accurately and warm up water to 30±5°C before dilute stock solutions.
- In case working solution is needed to store for a while, it should be stored in an airtight





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bottled in order to avoid oxidization.

- Don't have to mix chemicals each other because toxic gas and heat may be generated.
- Appropriate results cannot be given even if a very small amount of other processing solution is contaminated into "Color developer solution".

To make 2.5L working solutions

| Process | Chemicals | water | | Part-A | | Part-B | | Part-C | | Total |
|------------|-----------|--------|---|----------|---|--------|---|--------|---|--------|
| Color dev. | N1 : CD | 2150ml | + | 250ml | + | 100ml | + | 25ml | = | 2500ml |
| Bleach | N2 : BL | 1250ml | + | 625ml x2 | | - | | - | | 2500ml |
| Fixer | N3 : FX | 1975ml | + | 525ml | | - | | - | | 2500ml |
| Stabilizer | N4 : STB | 2475ml | + | 25ml | | - | | - | | 2500ml |

- Color Dev: Pour Part-A 250ml (1 bottle) into 2150ml of water and stir to be clear solution and then add Part-B 75ml (1 bottle) to be clear solution. Finally, add part-C 25ml (1 bottle) and stir it to be 2500ml of N1: CD working solution.
- **Bleach**: pour 2 bottles (625ml x 2) of N2: BL stock solution into 1250ml of water and stir it to be 2500ml of working solution.
- **Fixer**: pour 525ml (1 bottle) of N3: FX stock solution into 1975ml of water and stir it to be 2500ml of working solution.
- Stabilizer: pour 25ml (1 bottle) of N4: STB stock solution into 2475ml of water and softly stir it to be 2500ml of working solution.
- The working solution can be stored according to the instructions 4 below.

In case to make 1.25L of working solutions

| Process | Chemicals | water | | Part-A | | Part-B | | Part-C | | Total |
|------------|-----------|------------|---|---------|---|--------|---|----------|---|--------|
| Color dev. | N1:CD | 1075ml - | + | 125ml | + | 37.5ml | + | 12.5ml = | = | 1250ml |
| Bleach | N2 : BL | 625ml - | + | 625ml | | - | | - | | 1250ml |
| Fixer | N3:FX | 987.5ml - | + | 262.5ml | | - | | - | | 1250ml |
| Stabilizer | N4 : STB | 1237.5ml - | + | 12.5ml | | - | | - | | 1250ml |

- Stock solution can be measured to make needed working solutions in accordance with





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amount of films to be processed.

- It is possible to processes 20 rolls of films at most with using 1.25L of working solutions.
- The remained stock solutions can be stored in the original bottles.

In case to make 1L of working solutions

| Process | Chemicals | water | | Part-A | | Part-B | | Part-C | | Total |
|------------|-----------|-------|---|--------|---|--------|---|--------|---|--------|
| Color dev. | N1:CD | 860ml | + | 100ml | + | 80ml | + | 10ml | = | 1000ml |
| Bleach | N2 : BL | 500ml | + | 500ml | | - | | - | | 1000ml |
| Fixer | N3:FX | 790ml | + | 210ml | | - | | - | | 1000ml |
| Stabilizer | N4 : STB | 990ml | + | 10ml | | - | | - | | 1000ml |

- In case small amount of film to be processed, it is possible to make working solution as little as possible.
- For instance, the chart above shows to make 1L of working solutions to process 16 rolls of film as most.
- 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 may be required depending on the processing methods you use.

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

| Process | Chemicals | temp.(°C) | Times setting & number of films | | | | | |
|------------|-----------|------------|---------------------------------|----------|-------------------|------------|--|--|
| | | | 1~4rolls | 5~8rolls | $9{\sim}12$ rolls | 13~16rolls | | |
| Color dev. | N1:CD | 38.0 ± 0.3 | 3'15" | 3'30" | 3'45" | 4'00" | | |
| Bleach | N2 : BL | 38 ± 3 | 6'30" | 7'00" | 7'30" | 8'00" | | |
| Fixer | N3:FX | 38 ± 3 | 4'20" | 4'20" | 4'20" | 4'20" | | |
| Wash | tap water | 24~41 | 3'00" | 3'00" | 3'00" | 3'00" | | |
| Stabilizer | N4 : STB | 24~41 | 1'00" | 1'00" | 1'00" | 1'00" | | |

- To avoid a temperature drop and prepare your film you need to warm the tank up. Fill your tank, with the film inside, with 38°C water and leave for 5 minutes before starting to





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develop. After the 5 minutes, pour the water away.

- The chart above shows a guide of processing condition in case 1L of working solution is used to process films.
- The processing times changes in accordance with the amount of film to be processed in a working solution to be prepared.
- It may be required to adjust the developing time depending on the way of developing method.
- The films must be processed in the complete darkness until the end of Bleach processing (N2: BL).
- The times indicated in the chart include 10 sec of the interval time while draining solutions between a process to next process.
- In case failure is found on film base color, it may be suspected that small amount of bleach or fixer solution is contaminated into Color developer.

4. Storage condition

| Process | Chemicals | Stock solution in bottles opened once | working solution |
|------------|-----------|---------------------------------------|------------------|
| Color dev. | N1 : CD | 12 weeks | 1 week |
| Bleach | N2 : BL | 24 weeks | 24 weeks |
| Fixer | N3 : FX | 24 weeks | 24 weeks |
| Stabilizer | N4 : STB | 24 weeks | 24 weeks |

- In case the original bottles are opened once, please store the stock solutions in the original bottles in dark and cooler place.



2022.06