

C41 Digibase® Instruction Manual

professional made by compard KG, Geesthacht. Digibase ist ein geschütztes Warenzeichen.

Self processing of color negative films in home photo laboratories is rebounding popularity. Due to increasing demand *compard*, manufacturer of the DIGIBASE C-41 CHEMISTRY, has developed special chemistry sets in close cooperation with international photographers.

These sets are especially designed for beginners to facilitate self processing of color negative films, amateur photographers with medium scale film usage, semi-professional photographers and small to medium scale professional laboratories.

The DIGIBASE C-41 color photo chemistry set is characterized by the following qualities:

- Color chemistry of highest quality, based on C-41 standard process.
- Economical and more environment-friendly – due to the alternative of using single components.
- User-friendly package sizes.
- Unique modular system: There are kits available for the development of 10, 20 or 40 films. Also the purchase of single components is possible.
- Free choice of buying complete kits or single components.
- Due to the optimized package sizes full depletion and the maximum utilization of the chemistry within the shelf-life is possible. Extremely long shelf-life of the liquid concentrates. The various disadvantages of powder chemistry are avoided.
- Even with smaller film quantities very good economy.
- Exceptional attractive price performance ratio.
- Due to the standardization of the C-41 system the DIGIBASE C-41 color chemistry can be supplemented without any problems with the C-41 chemistry of other manufacturers.
- The DIGIBASE C41 packaging is derived from specialized packagings for professional extensive use.
- For the first time DIGIBASE C-41 color chemistry enables the photographer to use lower process temperatures. This facilitates the processing of color films, particularly in the private home laboratory.
- The DIGIBASE C-41 color chemistry is usable for creative processes like „cross development“, the development of reversal films in C-41 chemistry. In this cross process the color and contrast changes are affected by omitting and/or increasing of the starter quantities to color developers.

PREPARATION of the devices and the accessories.

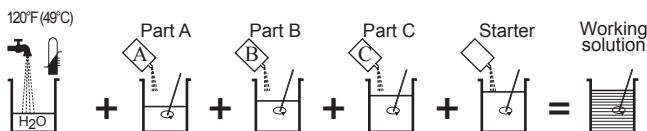
We have specified some important points you should consider before you start the processing:

Please place the devices on a table which you need for processing:

1. Exposed films. Color negative films (process C-41) have to be separated from color slide films (process E6).
2. Collect as many films as possible for one processing run, because already with the DIGIBASE C-41 mini kit you can process up to 2 x 5 films (135-36 and/or 120).
3. The developing tank: If your developing tank has only one reel, then additional reels should be present. Why? Because you can spool in films without problems only into perfectly dry reels. Wet reels can cause holdups of film and even breaks.
4. Several measuring cylinders of different volumes should be present. To each DIGIBASE C-41 kit syringes of different contents are attached. The smallest syringes are intended for the developer starter and the stabilization bath. The 3 larger syringes are intended for the 3 different color developers.
5. We recommend using 3 to 4 bottles for storing the working solution after use. Then it is readily available for the next processing runs.
6. Using a precise thermometer is recommended.
7. Metallic film clips are essential for hanging up the wet films.
8. For keeping the processing times precisely a laboratory clock and/or a stop watch should be used.
9. For preparing the working solution using tap water is possible - we recommend however „distilled water“ (demineralized water).

MIXING

1 Color Developer

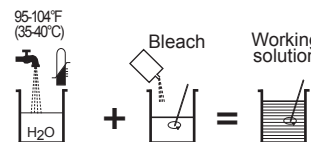


Fill the measuring cylinders for color developers with tempered water. Add color developer part A concentrate and stir to mix developer and water. Add color developer part B concentrate and keep stirring. Add color developer part C concentrate and keep stirring. Add color developer starter concentrate and keep stirring.

Add tempered water to make up to the final volume (see chart) and stir.

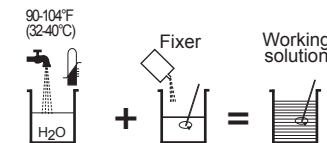
Tank	Working solution	Water (49°C)	Part A	Part B	Part C	Starter	Capacity Films
	250 ml	172,5	25	25	25	2,5	3 - 5
	1000 ml	690	100	100	100	10	12 - 20
JOBO Tank 2513	170 ml	117,3	17	17	17	1,7	2 - 4
JOBO Tank 2551	640 ml	441,6	64	64	64	6,4	8 - 13
JOBO Tank 2523	270 ml	186,3	27	27	27	2,7	3 - 6
JOBO Tank 2561	850 ml	586,5	85	85	85	8,5	10 - 17
JOBO Tank System 1510	140 ml Rotation 250 ml Kipp/Inversion	96 172,5	14 25	14 25	14 25	1,4 2,5	2 - 3 3 - 5
JOBO Tank System 1540	470 ml Rotation 975 ml Kipp/Inversion	325 672,75	47 97,5	47 97,5	47 97,5	4,7 9,75	6 - 10 12 - 20
AP Mini Compact	300 ml	207	30	30	30	3	4 - 6
AP Compact	1x135/126 = 375 ml	258,75	37,5	37,5	37,5	3,75	5 - 8
	2x135/126 = 650 ml	448,5	65	65	65	6,5	8 - 13
	1x127 = 460ml	317,4	46	46	46	4,6	6 - 9
	1x120/220 = 590ml	407,1	59	59	59	5,9	7 - 11

2 Bleacher



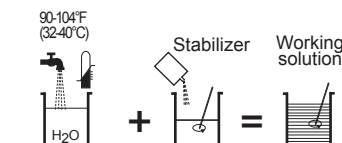
Tank	Working solution	Water (49°C)	Bleach	Capacity Films
	250 ml	180 ml	70 ml	5 - 7
	1000 ml	720 ml	280 ml	20 - 28
JOBO Tank 2513	170 ml	122 ml	48 ml	3 - 5
JOBO Tank 2551	640 ml	460 ml	180 ml	13 - 18
JOBO Tank 2523	270 ml	195 ml	75 ml	5 - 8
JOBO Tank 2561	850 ml	612 ml	238 ml	17 - 24
JOBO Tank System 1510	140 ml Rotation 250 ml Kipp/Inversion	100 ml 180 ml	40 ml 70 ml	3 - 4 5 - 7
JOBO Tank System 1540	470 ml Rotation 975 ml Kipp/Inversion	338 ml 702 ml	132 ml 273 ml	9 - 14 20 - 27
AP Mini Compact	300 ml	216 ml	84 ml	6 - 9
AP Compact	1x135/126 = 375 ml	270 ml	105 ml	8 - 11
	2x135/126 = 650 ml	468 ml	182 ml	13 - 19
	1x127 = 460ml	331 ml	128 ml	9 - 13
	1x120/220 = 590ml	425 ml	165 ml	12 - 17

3 Fixier



Tank	Working solution	Water (49°C)	Fixier	Capacity Films
	250 ml	200 ml	50 ml	5 - 7
	1000 ml	800 ml	200 ml	20 - 28
JOBO Tank 2513	170 ml	136 ml	34 ml	3 - 5
JOBO Tank 2551	640 ml	512 ml	128 ml	13 - 18
JOBO Tank 2523	270 ml	216 ml	54 ml	5 - 8
JOBO Tank 2561	850 ml	680 ml	170 ml	17 - 24
JOBO Tank System 1510	140 ml Rotation 250 ml Kipp/Inversion	112 ml 200 ml	28 ml 50 ml	3 - 4 5 - 7
JOBO Tank System 1540	470 ml Rotation 975 ml Kipp/Inversion	376 ml 780 ml	94 ml 195 ml	9 - 14 20 - 27
AP Mini Compact	300 ml	240 ml	60 ml	6 - 9
AP Compact	1x135/126 = 375 ml	300 ml	75 ml	8 - 11
	2x135/126 = 650 ml	520 ml	130 ml	13 - 19
	1x127 = 460ml	368 ml	92 ml	9 - 13
	1x120/220 = 590ml	472 ml	118 ml	12 - 17

4 Stabilizer



Tank	Working solution	Water (49°C)	Stabilizer	Capacity Films
	250 ml	225 ml	25 ml	15
	1000 ml	900 ml	100 ml	60
JOBO Tank 2513	170 ml	153 ml	17 ml	10
JOBO Tank 2551	640 ml	576 ml	64 ml	38
JOBO Tank 2523	270 ml	243 ml	27 ml	16
JOBO Tank 2561	850 ml	765 ml	85 ml	50
JOBO Tank System 1510	140 ml Rotation 250 ml Kipp/Inversion	126 ml 225 ml	14 ml 25 ml	8 15
JOBO Tank System 1540	470 ml Rotation 975 ml Kipp/Inversion	423 ml 877,5 ml	47 ml 97,5 ml	28 58
AP Mini Compact	300 ml	270 ml	30 ml	18
AP Compact	1x135/126 = 375 ml	338 ml	37 ml	22
	2x135/126 = 650 ml	585 ml	65 ml	39
	1x127 = 460ml	414 ml	46 ml	27
	1x120/220 = 590ml	530 ml	60 ml	35

PROCESSING

This general information is based on intensive tests and experiences of many users of the DIGIBASE C-41 chemistry, who have reported their results and have given allowance for publishing. No responsibility is accepted for the correctness of this information.

1 Pre-Soaking

Processing	Temperatur	Time	Agitation
Pre-Soaking is necessary to temper the developing tank and reel, to give them the correct working temperature. If you don't do that, a sudden temperature change will occur and the working temperature of the color chemistry will change to incorrect values. Pre-soaking has to be done with the same temperature you use for processing.	68°F - 100°F 20°C - 38°C	2 - 3 Min.	Invert the tank continuously for the first 15 seconds, afterwards agitate once every 30 seconds.
	113°F 45 °C Rapid	2 Min.	

2 Color Developer

Processing	Temperatur	Zeit	Kipprhythmus
Preheating of the developing tank: The tank should stand in a tempered water bath to reduce temperature variability	100°F (37,8°C ±0,3°)	3 Min. 15 Sek.	Invert the tank continuously for the first 15 seconds, afterwards agitate once every 30 seconds.
	113°F 45 °C Rapid	2 Min.	
	77 °F 25 °C	13 Min.	Agitate once every 30 seconds.
	68 °F 20 °C	21 Min.	

3 Bleach

Processing	Temperatur	Time	Agitation
	90 - 104°F (32 - 40°C)	3 Min. - 4 Min 20 Sek.	Invert the tank continuously for the first 15 seconds, afterwards agitate once every 30 seconds.
	113°F 45 °C Rapid	2 Min.	
	77 °F 25 °C	6 Min.	

4 Fixierbad

Processing	Temperatur	Time	Agitation
	90 - 104°F (32 - 40°C)	4 Min. 20 Sek. - 6 Min 30 Sek.	Agitate once every 30 seconds.
	113°F 45 °C Rapid	2 Min. 30 Sek.	
	77°F 25°C	7 Min.	

5 Stabilizer

Processing	Temperatur	Time	Agitation
Using of color stabilizer is recommended for an optimal drying of the film, and soap rings can be avoided.	90 - 104°F (32 - 40°C)	1 Min. - 1 Min 20 Sek.	Invert the tank continuously for the first 15 seconds, afterwards agitate once every 30 seconds.
	77°F 25°C	1 Min 30 Sek.	

6 Drying

Unfortunately many errors occur during the drying process. For this reason please work in this process with the same concentration and reliability as you have done before with the color chemistry.

- Take the film out of the reel without touching it with your fingers. That is quite easy, if you immediately affix the film clip to the film end in the reel.
- Afterwards hang up the film.
- Then open the reel by turning and let the film sliding out of the reel.
- Affix the film clip with counterweight at the top of the film.
- The room in which the film is hanging for drying must be dust free. For example you can use the shower cubicle, and before drying rinse the cubicle with water to remove the dust.
- Please be careful if you use a hair blower to shorten the drying time. Why? Because of the not filtrated air flow you will definitely get dust on the film.
- As soon as the film is dry, cut it in strips and archive it in negative sleeves.

! Trouble Shooting

PROBLEM	PROBABLE CAUSE	REMEDY
Thin negatives	<ul style="list-style-type: none"> • Low development temperature • Under exposure in camera • Developer exhausted 	Reread and follow all instructions carefully on temperature control, solution, capacity, etc.
Negatives appear more magenta than normal with higher density near sprocket holes	<ul style="list-style-type: none"> • Developer too warm • Overly vigorous agitation in conventional tank 	Maintain temperature control. Use only agitation methods prescribed.
Black "dirt" specks on negatives which print as white spots.	<ul style="list-style-type: none"> • Improperly washed 5247 film 	Remove ALL carbon jet backing during final rinse.
Negatives look OK but prints are a bit too flat.	<ul style="list-style-type: none"> • Too little development 	Increase development time.
Negatives look OK but loss of highlight and shadow detail.	<ul style="list-style-type: none"> • Too much development 	Decrease development time.
color of the mask brownish	bleach and fixing time too short	new bleach and fixing run with correct times
milky cords and areas after drying	insufficient bleaching / fixing, insufficient wetting of the film	new bleach and fixing run
Irregular color of the mask, minimal density too high, but maximal density too low	color developer is contaminated with bleach	fresh solution of color developer
whitely blurs on the dry film	calcium carbonate blurs, water was too hard	use distilled / demineralized water for stabilizer bath

Safety Notes

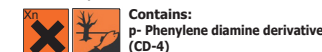
WARNING This kit contains chemicals that may be hazardous if misused. Always wear safety glasses, rubber gloves and protective clothing, such as a lab coat or plastic apron, when working with chemicals. While the hazard rating of this kit is low, caution should be exercised. Do not allow children to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

Developer Part A



Noxious Irritating to eyes. Limited evidence of a carcinogenic effect. May cause sensitisation by skin contact. Possible risk of irreversible effects. Keep out of the reach of children. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves. If swallowed seek medical advice immediately and show this container or label.

Developer Part C



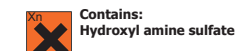
Noxious, Dangerous for the environment • Irritating to eyes. Limited evidence of a carcinogenic effect. May cause sensitisation by skin contact. Possible risk of irreversible effects. Keep out of the reach of children. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves. If swallowed seek medical advice immediately and show this container or label.

Bleacher



Noxious Irritating to eyes. Limited evidence of a carcinogenic effect. May cause sensitisation by skin contact. Possible risk of irreversible effects. Keep out of the reach of children. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves. If swallowed seek medical advice immediately and show this container or label.

Developer Part B



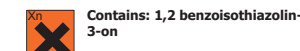
Irritant Irritating to eyes. Limited evidence of a carcinogenic effect. May cause sensitisation by skin contact. Possible risk of irreversible effects. Keep out of the reach of children. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves. If swallowed seek medical advice immediately and show this container or label.

Fixer

Irritating to skin and eyes. Safety advise : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection.

Irritant pour les yeux et la peau. Conseils de prudence : En cas de contact avec les yeux, laver immédiatement et abondamment avec de l'eau et consulter un spécialiste. Porter des gants appropriés et un appareil de protection des yeux/du visage.

Stabilizer



Noxious Irritating to eyes. Limited evidence of a carcinogenic effect. May cause sensitisation by skin contact. Possible risk of irreversible effects. Keep out of the reach of children. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing and gloves. If swallowed seek medical advice immediately and show this container or label.

DISPOSAL CONSIDERATIONS

Environmental regulations, discharge of chemicals and wastewater, waste treatment and disposal conditions of chemicals and their packaging may vary from one country to another. The relevant local regulations should be consulted. When this product or its contaminated packaging has to be removed as waste, contact an authorized waste contractor. May be discharged to drain if local regulations permit.

For waste resulting from this product, it is recommended to use European Waste Code : **09 01 01** (water-based developer and activator solutions) European Waste Code : **09 01 05** (Bleach and Bleachfix solutions)

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.