# **MAGIC BOX RA-4 DEVELOPER**

With **TETENAL MAGIC BOX RA-4 DEVELOPER**, RA-4 colour paper can be processed quickly and safely at home. The kit contains all necessary concentrates for mixing the processing chemicals.

#### **MAGIC BOX RA-4 DEVELOPER**

for the processing of approx. 23 sheets 18 x 24 cm (approx. 1 m<sup>2</sup>) colour paper Art. No. 100257

KIT CONTENT			
Process step Colour Developer Colour Developer	Code CD 1/1 CD 1/2	50 ml concentrate 50 ml concentrate	for 500 ml ready-to-use solution
Stop Bath	ST 2	50 ml concentrate	for 500 ml ready-to-use solution
Bleach Fix Bleach Fix	BX 3/1 BX 3/2	50 ml concentrate 50 ml concentrate	for 500 ml ready-to-use solution
Stabilizer	STAB 4	50 ml concentrate	for 500 ml ready-to-use solution

## **ADDITIONALLY REQUIRED**

- RA-4 Colour paper
- Room, absolutely dark to insert the paper into the processing drum
- 1 processing drum, e.g. JOBO
- 1 lab thermometer
- 1 timer or smart phone
- 1 measuring cylinder (glass or plastic), approx. 500 ml for measuring of water
- 4 bottles, 500 ml each as storage bottles for the freshly mixed chemicals Water-resistant pen for writing on bottles or on sticky labels
- Colour processor or tempering unit, e.g. JOBO
- Soft squeegee, rubber or silicone

All necessary equipment and utensils should be provided <u>before</u> starting the developing process.

### **DEVELOPING PROCESS RA-4**

The developing process includes subsequent steps:

- Colour Developer
- Stop Bath
- Bleach Fix
- Wash
- Stabilizer
- Dry

The exposed colour paper is inserted in **complete darkness** into the processing drum, after which the drum is to be closed. Processing itself can take place in daylight.

### MIXING OF THE PROCESSING CHEMICALS

The processing chemicals are mixed directly in the storage bottles.

Prepare 1,7 litres of warm water (approx. 40° C) required for CD (400 ml), ST (450 ml), BX (400 ml) and STAB (450 ml) – fill the exact water volumes into the storage bottles.

Then add the corresponding concentrates completely to the water, close the bottles and shake shortly.

As soon as the processing chemicals will have reached the process temperature of 35°C or 30°C the developing process can be started.

Colour Developer CD				1			
400 ml <b>Water</b>	+	50 ml <b>CD 1/1</b>	+	50 ml <b>CD 1/2</b>	=	500 ml <b>Colour Developer</b>	
<b>Stop Bat</b>	h Sī	Γ					2
450 ml Water	+	50 ml <b>ST 2</b>			=	500 ml Stop Bath	
Bleach Fi	ix B	X					3
400 ml <b>Water</b>	+	50 ml <b>BX 3/1</b>	+	50 ml <b>BX 3/2</b>	=	500 ml Bleach Fix	
Stabilize	r ST	AB					4
450 ml <b>Water</b>	+	50 ml			=	500 ml Stabilizer	

### **IMPORTANT NOTES**

Absolute cleanliness of the equipment is a precondition for perfect results.

Rinse the thermometer thoroughly with water after every measurement, never go directly from bath to bath.

Rinse the processing drum after every processing circle thoroughly under running water. Then dry immediately, ideally with a hair dryer or a hot air blower.

#### **TIMES AND TEMPERATURES**

The processing of the exposed paper is carried out in a drum, ideally suitable is a colour processor, which enables an exact and constant adherence to the processing parameters: automatic temperature control - automatic movement. The processing drum rotates motor-driven in a temperature-controlled water bath, which also keeps the bottles with the processing chemicals at the right temperature. Rotation speed for JOBO = P.

Development can take place either at 35°C or 30°C, as desired. The respective filling volumes for every processing cycle depend on the drum size. Please observe manufacturer's instructions. The processing solutions can be applied several times until the max. capacity limit of 23 sheets 18 x 24 cm is reached, solutions are to be used up within 4 weeks.

DEVELOPING PROCESS		35 °C
	Temperature °C	Time (Seconds)
Preheating of the drum	35 ± 0,5	60
Colour Developer	35 ± 0,3	45
Stop Bath	35 ± 1	15
Bleach Fix	35 ± 1	45
Wash	35 ± 5	6 x 30
Stabilizer	30 ± 10	60

DEVELOPING PROCESS		30 °C
	Temperature °C	Time (Seconds)
Preheating of the drum	30 ± 0,5	60
Colour Developer	$30 \pm 0.5$	100
Stop Bath	35 ± 1	15
Bleach Fix	30 ± 1	100
Wash	30 ± 2	8 x 30
Stabilizer	30 ± 2	60

Flowing water rinse or water wash with exchange of water every 30 seconds. (each approx. 250 ml).

The indicated times cover the period from the first contact of the paper with chemistry or with water to the first contact of the following bath or water.

After the processing drum is filled with chemistry or water the time is started.

After the Stabilizer, the wet paper is removed from the processing drum, carefully stripped with a soft squeegee (silicone or rubber) and then dried. An electric continuous dryer is ideal - if not available, the paper can also be air dried.

## DISPOSAL OF USED CHEMICALS

Used chemicals can be disposed of at municipal waste collection points or recycling centres.