

BERGGER

# Pancro400

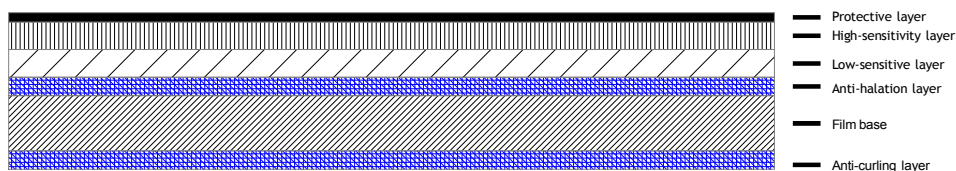
FILM NOIR & BLANC - BLACK & WHITE FILM

BERGGER Pancro 400 is a fast, fine grain, black and white film for photographic purpose. Exposed at ISO 400, the film delivers outstanding high quality photographs.

BERGGER Pancro 400 includes two photographic Silver-Bromide/Iodide emulsions that differ in grain size in order to achieve the films outstanding exposure range. The crystals are precipitated by a computer-controlled double jet process. Both emulsions are panchromatically sensitizes and stabilized according the latest state of research and development.

BERGGER Pancro 400 in sheets is coated on a 175 microns PET base. The undercoated anti-halation layer clears during processing. Pancro 400 includes an anti-curling layer. The emulsion faces the user when the notch is in the upper right or lower left corner.

Layer composition of BERGGER Pancro 400



## Processing of Pancro 400

### *Presoaking*

It is highly recommended to presoak in water at least for one minute. The water should be at the same temperature as process temperature. Before using BERGGER PMK developer, the film must be presoaked in water for 5 minutes, at one degree warmer than developer.

### *Developer*

Developing times are given for a contrast of 0,7 in the following chart.

It is recommended to agitate during the 30 first seconds, and then, ten seconds at the top of every minute. If using PMK, the tank must be agitated during the 30 first seconds, and then two agitations every 15 seconds.

### *Stop bath*

A stop bath, composed by acetic acid (2%) can be used to stop the action of the developer, before using the fixer.

Time of this bath must be comprised between 30 seconds and 60 seconds, and its temperature must be the same as the rest of the process.

It is possible to replace this bath with a plain water bath, at the same temperature as the process. Using water allows the film to continue developing in the shadows during the stop stage.

### *Fixer*

BERGGER PANCRO 400 needs a longer the usual fixing time. In rapid, non hardening fixer, it is recommended to use a dilution of 1+4 for 6 minutes.

### *Washing*

BERGGER recommends the following washing sequence, which is efficient and environment friendly.

- A rinse in a sulphite bath (10 %) will allow to eliminate the chemicals complexes resulting from fix bath, and also allow the full dissolution of the anti-halation layer.
- 10 washes in clear water, every ten minutes will allow to eliminate all chemical residue remaining in the gelatin.
- Final rinse in demineralized water, with wetting agent at the concentration of 1+200.

### *Drying*

The film should be hung to dry in a dry and dust-free environment. It is recommended to eliminate the water drop that forms at the lower corner of the film, with a tissue, or absorbing paper.

## TIME / TEMP CHART

### CHARTRE DE CORRESPONDANCE TEMPERATURE / TEMPS

		Temperature				
		20° C	21° C	22° C	23° C	24° C
Time / Temps	4'		NR	NR	NR	NR
	4'30		4'	NR	NR	NR
	5'		4'30	4'15	4'	NR
	5'30		5'	4'30	4'15	4'
	6'		5'30	5'	4'45	4'15
	6'30		6'	5'50	5'	4'45
	7'		6'30	6'	5'30	5'
	7'30		7'	6'25	6'55	5'25
	8'		7'20	6'45	6'15	5'45
	8'30		7'45	7'15	6'45	6'10
	9'		8'20	7'40	7'	6'30
	9'30		8'40	8'	7'30	6'45
	10'		9'15	8'30	7'45	7'15
	10'30		9'45	9'	8'15	7'40
	11'		10'15	9'15	8'40	8'
	11'30		10'40	9'45	9'	8'15
	12'		11'	10'15	9'20	8'45
	12'30		11'30	10'40	9'45	9'
	13'		12'	11'	10'15	9'25
	13'30		12'30	11'30	10'35	9'45
14'		12'50	11'45	11'	10'	
14'30		13'25	12'15	11'25	10'30	
15'		13'45	12'40	11'45	10'50	
15'30		14'15	13'15	12'15	11'15	
16'		14'45	13'40	12'30	11'30	
16'30		15'15	14'	13'	11'	
17'		15'45	14'30	13'15	12'15	
17'30		16'15	14'45	13'40	12'30	
18'		16'30	15'15	14'10	13'	
18'30		17	15'45	14'30	13'25	
19'		17'30	16'10	14'50	13'45	
19'30		18'	16'30	15'20	14'15	
20'		18'30	17'	15'45	14'30	

*Developing times :*

The following developing times are given as a starting point, to reach a contrast value of  $\gamma=0,70$ , at a developer temperature of 20°C, when the film is rated at 400 ISO .  
These developing times can be adapted, depending on the photographer's needs.

Developer	Dilution	Developing time
Kodak D76	Stock	9 min.
Kodak D76	1+1	17 min.
Bergger BERSPEED	1+1	12 min.
Bergger PMK	1+2+100	18 min.
Bergger BER49	Stock	14 min.
Bergger BER49	1+1	23 min.
Kodak HC110	B	9 min.
R09 One Shot / Rodinal	1+25	8 min.
R09 One Shot / Rodinal	1+50	22 min.
R09 Studio / Studional	1+15	6 min.
Rollei SUPERGRAIN	1+9	9 min. 30
Kodak XTOL	Stock	10 min.
Kodak XTOL	1+1	18 min.
Ars-Imago FD	1+39	10 min. 30

## Long exposure corrections

BERGGER Pancro 400 exhibits no reciprocity failures for exposures shorter than one second. For longer exposure times, please follow the table below.

Temps d'exposition théorique	Correction d'exposition (f - stops)
< 1 seconde	Aucune
1 seconde	+0,5
10 secondes	+1,3
60 secondes	+2

**Densitometric curves :**

