

MACOPHOT UP100 *plus*

MACOPHOT UP400 *plus*

Technical application TA No. 161/1

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A short summary of attributes of these MACOPHOT UP Black & White Films

- panchromatic sensitized
- wide exposure latitude
- fine grain
- good tonal range
- high sharpness
- easy processing
- attractive value for money
- two film speeds for different applications

1. Assortment

UP100 *plus*:

- 35 mm film, double perforation, 136-36 cartridge, DX code (metall cartridge easy opening by hand, reusable)
- 35 mm film, double perforation, 30,5 meters roll (100 ft).
- sheetfilm in sizes:

as well as:

4" x 5" 50 Sheets

UP400 *plus*:

- 35 mm film, double perforation, 136-36 cartridge, DX code (metall cartridge easy opening by hand, reusable)
- 35 mm film, double perforation, 30,5 meters roll (100 ft).

2. General data of the lightsensitive silverhalogenide emulsion

Type of emulsion: - traditional cubic crystal-technology
(UP100 *plus* + UP400 *plus*)

Sensitization: - panchromatic
(UP100 *plus* + UP400 *plus*)

3. ISO values/Film spee

UP 100 *plus* = ISO 100/21°

UP 400 *plus* = ISO 400/27°

4. Resolving power

UP 100 *plus*: 110 lines/mm

UP 400 *plus*: 90 lines/mm

(based on contrast ratio 1000:1)

5. Coating structure: (top to bottom)

1. Protective coating
2. Light sensitive emulsion
3. Anti halo coating (AHU, decoloring during wet processing)
4. base light grey colored

6. Thickness of emulsion

UP100 = approx. 5,5μ

UP400 = approx. 8μ

7. Processing informations

Following times in minutes are approximate and based on a temperature of 20°C.

Agitation rythm 30 sec., Gamma (g) 0,60 -0,65 suited for enlargers with diffuse lighting as well as for condenser heads.

Developer	UP100 <i>plus</i>	UP400 <i>plus</i>
LABOR PARTNER LP-GRAIN / ecotol 1+7	5	5
LABOR PARTNER LP-GRAIN X	8	10
AGFA ATOMAL	7	-
CALBE A 49 (working solution)	8	10
ILFORD ID-11 (work.sol.)	8	10
ILFORD MICROPHEN	7	9
ILFORD PERCEPTOL (work.sol.)	-	12
KODAK D-76 (work.sol.)	8	10
KODAK XTOL (work.sol., dilution 1+1)	11	-
KODAK T-MAX	-	8
TETENAL ULTRAFIN liquid, 1+10	-	5,5
TETENAL ULTRAFIN liquid, 1+20	5,5	-
TETENAL ULTRAFIN Plus, 1+4	4,5	6

Stopbath:

LABOR PARTNER LP-CITRIN: 1 minute

Fixing bath:

LABOR PARTNER LP-FIX SUPRA 2-4 Minutes

Washing:

In running water, or with MACO ecowash Filmwasher, Water temperature above 15°C 5 Minutes

Wetting agent:

LABOR PARTNER MASTER PROOF 1 Minute

(LABOR PARTNER LP-GRAIN, LP-GRAIN X, LP-FIX SAUER, LP-CITRIN , LP-MASTER PROOF, AGFA ATOMAL, CALBE A 49, ILFORD ID-11, MICROPHEN, PERCEPTOL, KODAK D-76, T-MAX, XTOL, TETENAL ULTRAFIN, ULTRAFIN PLUS are trademarks)

8. Safety light

Usually processing will take place in total darkness. If needed one may use a deep panchromatic green filter for the safety light in sufficient distance.

To check illumination intensity / duration individual testing is recommended.

9. Storage

Unexposed MACO MACOPHOT UP-Films should be stored in a cool and dry place before use. After deep freezing storage, unopened packages should be allowed to warm up for about 2 hours.

Exposed films should be developed soon.

10. General information about MACO Products

For all MACO Products, of which some have been mentioned here, you can receive technical application sheets by sending a sufficiently stamped envelope with your address

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Errors, or omissions regarding technical progress, remain excepted.