Instructions

JOBO α

Universal One Shot Black & White Film Developer

You are holding in your hands the best b&w developer that JOBO has marketed in the last 100 years so to mark that centenary, JOBO has designed a range of photo chemistry, working in collaboration with the great chemist Klaus Wehner.

We know through that experience that when developing B&W film, it is important to optimise three points if possible, all three criteria form the magic triangle of film development, very few developers can maximise all 3 points.

- Film sensitivity
- Fine grain 3
- Sharpness.

So, quite naturally film development is a fundamental step and of course each film can only be developed once so the better this development goes, the more stable the basis on which excellent prints or scans can be produced.

Our laboratory tests have proven that the JOBO Alpha developer allows full use of the film speed and is still characterised by a high level of fine grain and great sharpness.

- This is a one-shot developer and should be prepared immediately before use
- To mix use 5ml of Part A and 5ml of Part B for each 100ml of working solution required (1+1+18)
- A minimum amount of 6 ml Part A + 6 ml Part B must be used per film when making smaller volumes
- To increase shelf life store in dark, well labelled bottles with the minimum amount of air in as possible or vacuum sealed bottles
- Use of a more neutral stop bath is recommended, two-bath fixing is preferred
- Manual agitation: **22° C is the recommended development temperature**, extended development times by a factor of 1.1 if using 20° C or reduce by a factor of .82 with the increased temperature of 24° C

The times in the table below are given as guidelines for processing with no pre-soak at 22 °C and rotary development for a medium contrast (gamma 0.65).

For the development of larger formats (sheet film), pre-soaking in water at 22° C helps ensure that the entire film surface is developed as evenly as possible.

Recommended rotation speeds for rotary of JOBO tank systems 1500 and 2500 (and dev.a) is between 65 and 75 rpm with about 50rpm for those using JOBO Expert Drums for sheet films.

Film	Mixture	Temp.	Time
Iford Pan F (50 ASA)	5 + 5 + 90 ml	22° C	6 Min.
Ilford FP-4	5 + 5 + 90 ml	22° C	8,5 Min.
Ilford HP-5	5 + 5 + 90 ml	22° C	12 Min.
Ilford Delta 100	5 + 5 + 90 ml	22° C	7 Min.
Ilford Delta 400	5 + 5 + 90 ml	22° C	10 Min.
Ilford SFX 200	5 + 5 + 90 ml	22° C	9 Min.
Ilford 3200 (1000 ASA)	5 + 5 + 90 ml	22° C	16 Min.
Kokak Tmax 100	5 + 5 + 90 ml	22° C	10 Min.
Kodak Tmax 400	5 + 5 + 90 ml	22° C	11 Min.
Kodak Tri X	5 + 5 + 90 ml	22° C	11 Min.
Kodak P 3200 (1000 ASA)	5 + 5 + 90 ml	22° C	16 Min.
Adox Pan 25	5 + 5 + 90 ml	22° C	8 Min.
Adox CHS 100 II	5 + 5 + 90 ml	22° C	7,5 Min.
Adox Silvermax	5 + 5 + 90 ml	22° C	7 Min.

Adox CHM 100	5 + 5 + 90 ml	22° C	8 Min.
Adox CHM 400	5 + 5 + 90 ml	22° C	15 Min.
Agfa APX 100	5 + 5 + 90 ml	22° C	7 Min.
Agfa APX 100 new	5 + 5 + 90 ml	22° C	8 Min.
Agfa APX 400 new	5 + 5 + 90 ml	22° C	15 Min.
Polypan F	5 + 5 + 90 ml	22° C	16 Min.
Fuji Acros	5 + 5 + 90 ml	22° C	6 Min.
Foma Pan 100	5 + 5 + 90 ml	22° C	6 Min.
Foma Pan 200 (100 ASA)	5 + 5 + 90 ml	22° C	8,5 Min.
Foma Pan 400 (200 ASA)	5 + 5 + 90 ml	22° C	10 Min.
Kentmere 100	5 + 5 + 90 ml	22° C	8 Min.
Kentmere 400	5 + 5 + 90 ml	22° C	15 Min.
UN 54, Shanghai GP3, Lomo Potsdam (100 ASA)	5 + 5 + 90 ml	22° C	6 Min.
N-74	5 + 5 + 90 ml	22° C	12 Min.
Rollei RPX 25 (40 ASA)	5 + 5 + 90 ml	22° C	6 Min.
Rollei Super Pan 200 (100 ASA)	5 + 5 + 90 ml	22° C	6 Min.
Rollei RPX 100	5 + 5 + 90 ml	22° C	8 Min.
Rollei RPX 400	5 + 5 + 90 ml	22° C	15 Min.
Bergger Pancro 400	5 + 5 + 90 ml	22° C	25 Min.

Note: all the above dev times are for films used at box speed asa unless otherwise indicated

Special Developments:

Film	**Mixture**	**Temp.**	**Time**
Adox HR/ IR 50 (50 ASA) ***1**)	2,5 + 2,5 + 95 ml	22° C	9,5 Min.
use Infra-Red / Filter 720 nm (3,2 ASA)	2,5 + 2,5 + 95 ml	22° C	9,5 Min.
Ferrania P 30 (25 ASA)	1,2 + 1,2 + 97,6	22° C	9 Min.
Rollei 80 S (32 ASA)	2,5 + 2,5 + 95 ml	22° C	8,5 Min.
Adox CMS 20 (9 ASA) ***2)**	1,2 + 1,2 + 97,6	22° C	6 Min.

***1)** Sensitivity practically determined (density zone V)
***2)** Adox CMS 20: Contrast control possible through dilution, high contrast: 2 + 2 + 96, low contrast: 1 + 1 + 98

Push & pull processing:

Suitable films: Delta 400, T-Max 400, HP-5, Tri-X, N-74, Kentmere 400, Adox CHM 400, APX-400 new, RPX 400

Time adjustments are needed when altering film speed, so multiply the table times above by the factors below:

ISO	200/ 24	400/ 27	800/ 30	1600/ 33	3200/ 36
Factor	0,77	1,0	1,3	1,7	2,2

For further information talk directly to you Jobo dealer or email: chemicals@jobo.com