

Film developer

Fine grain - Strong accutance
Suitable for push processing

BERGGER Berspeed

BERSPEED developer is a fine grain developer that can allow a speed increase with most of the films. Exposed at their nominal sensitivity, the BERSPEED delivers pictures with full shadows and unburnt highlights. The grain is fine and is kept thin even in push processing. BERSPEED is recommended with both traditional and modern grain films.

Mixing instructions

BERSPEED is sold in powder that has to be dissolved in pure water. Even if the chemicals are not hazardous, it's better to prepare the stock solution wearing gloves, eye protections, and an apron.

To prepare the concentrated solution (stock solution), **dissolve the content of part A** (bigger bag) in about three-quarters of the total solution volume (see on the box) of water heated at about 40 °C. Stir until the whole powder is dissolved.

Then add the content of the part B followed by part C. Keep stirring until no more powder is in suspension. Then add room temperature water to reach the final volume.

In order to obtain outstanding results it's recommended to filter the solution through a coffee filter. The developer stock solution is now ready.

Conservation

The lifetime of the stock solution in an opaque container properly closed is about 4 months.

Use instructions

Dilution: Even if BERSPEED can be used as a stock solution, it is recommended to dilute the stock solution 1:1 with water. Prepare the solution just before they are needed.

Optimal developing temperature:

Best results will be obtained developing at 24°C (75°F). However, it can be used from 20°C (68°F). It's not recommended to develop at higher temperatures than 24°C (75°F).

Film processing

As with all other developer, it is recommended to prewet the film, at least for one minute. Then, pour the tank with the BERSPEED working solution and agitate softly but continuously for 30s. Then agitate softly 10s every minute.

Stop the reaction with stop bath, and fix as usual.

Chemical handling

Photographic chemicals are not hazardous when used correctly. It is recommended that gloves, eye protection and an apron are worn when handling and mixing all chemicals.

Developing times

The following developing times are given as a starting point, to reach a contrast value of $\gamma=0,70$. These developing times can be adapted, depending on the photographer's needs. From 20° to 24°, the given developing times allows a soft grain and a wide range of grey.

Film	ISO	Dil	20°	21°	22°	24°
BERGGER Pancro400	400	1+1	11'	10'15	9'15	8'
	800	1+1	15'	13'45	12'40	10'50
	1600	1+1	19'	17'30	16'10	13'45
Ilford FP4+	125	1+1	9'15	8'30	10'15	8'45
Ilford HP5+	400	1+1	10'	9'15	8'30	7'30
	800	1+1	17'	15'45	14'30	12'15
	1600	1+1	22'	20'30	19'	16'
Ilford Delta 100	100	1+1	10'	9'15	8'30	7'30
Ilford Delta 400	400	1+1	11'30	10'40	9'15	8'15
Ilford Delta 3200	800	1+1	14'	16'30	15'15	10'15
	1600	1+1	16'	8'40	8'	11'50
	3200	1+1	18'	7'20	6'45	13'
Ilford SFX 200	200	1+1	15'30	14'15	13'15	13'15
Kodak Tri-x 400	400	1+1	11'	10'15	9'15	8'
	800	1+1	15'30	14'15	13'15	13'15
Kodak Tmax 100	100	1+1	11'	10'15	9'15	8'
Kodak Tmax 400	400	1+1	10'45	10'	9'	7'30
Fujifilm Acros 100	100	1+1	11'	10'15	9'15	8'
Fomapan 100	100	1+1	8'	7'20	6'45	6'
Fomapan 200	200	1+1	10'	9'15	8'30	7'15
Fomapan 400	400	1+1	12'	11'	10'15	8'45
Rollei RPX 100	100	1+1	11'	10'15	9'15	8'
Rollei RPX 400	400	1+1	12'30	11'30	10'40	9'

Time / temp chart

To adapt your development time according to your preferences, you can refer to this Time / temp chart.

	Temp				
	20°	21°	22°	23°	24°
	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'	5'30	5'	4'45
	7'	6'30	6'	5'30	5'
	7'30	7'	6'25	5'55	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