DATA SHEET

SPUR

Speed **P**hotography
+
Ultrahigh **R**esolution

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Data Sheet for SPUR ACUROL-N

SPUR ACUROL-N is a highly dilutable, novel developer for black-and-white films which is primarily optimised to achieve high sharpness and finely graduated tonal values. As with all developers of this kind (e.g. the classic Rodinal formula) the picture style of the negative can be easily varied or changed by choosing different dilutions and inversion tacts.

The developing parameters indicated in the developing chart are meant to be points of reference that will enable even beginners to obtain excellent results. Experienced users may use those parameters as a starting point to determine according to their personal predilection individual developing times for their preferred films by varying dilution, inversion, and times of development or stand development.

Features that may be varied by dilution and agitation:

SPUR ACUROL-N responds far more easily to changes in agitation than conventional developers. It is therefore necessary to adhere rather closely to the indicated inversion tact and developing times when using low dilutions (1+25 to 1+50). Otherwise the lights turn out too steep, thereby impairing tonal values.

The higher the dilution and the less agitation (e.g. stand development of 5 minutes), the more sculptural the image expression and the more acutance (Eberhard effect). Please note that with low agitation (stand development of more than 5 minutes) grain will turn out more accentuated and therefore more pronounced. Subsequently graininess may be controlled by varying agitation. The contrast of the negatives may be increased by prolonging the developing time and/ or more frequent inversion.

The developing parameters indicated in the developing chart were determined using 35 mm films. With larger formats, and above all high dilutions (1+100 or higher) you must increase agitation or prolong development. Rule of thumb: Agitate twice as much as usual when developing roll film (i.e. invert twice instead of once) and thrice as much when developing sheet film (i.e. invert three times instead of once). The reason for this is that due to the larger format, and especially with high dilutions, the capacity of the working solution decreases more rapidly during inversion.

Developing temperature:

The indications of temperature (> 20° C) mean temperature of the working solution when filling in. It is not necessary to take any further steps to uphold that temperature during development, if you develop at normal room temperature.

Water quality:

Due to the extremely high dilutability of SPUR ACUROL-N, the water hardness has a far greater impact on the results than with other developers. Use soft tap water for carefree development. In areas with hard water we strongly recommend the use of destilled, demineralised or deionised water. Should you however dilute SPUR ACUROL-N with hard water, developing times must be considerably prolonged.

Hybrid processing:

Negatives developed in SPUR ACUROL-N are especially suited for scanning. Even negatives that are underexposed up to one f number can be scanned without difficulty and without showing a loss.

Shelf life:

SPUR ACUROL-N is a supreme longlife product. Sealed in its original bottle it remains stable for 3 to 4 years. Over time, the colour of the developer may turn dark brown. This does not however have any effect on the developing results.

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Developing Chart SPUR ACUROL-N, Page 1

Manufacturer Film	Inversion Tact	Temp.	Filmspeed ISO	Developing Time[min]	Dilution	Contrast
Agfa APX 100 Old	30 sec permanently, and once every minute thereafter	20° C	50/18°	9.5	1 + 50	normal (N)
Agfa APX 100 Old	30 sec permanently, and once every minute thereafter	20° C	50/18°	50	1 + 100	normal (N)
Agfa APX 100 Old	30 sec permanently, and once every minute thereafter	20° C	100/21°	11	1 + 24	high (N +1)
Agfa APX 100 Old	30 sec permanently, and once every minute thereafter	20° C	100/21°	14	1 + 50	somewhat higher (N + 0,5)
Agfa APX 100 Old	30 sec permanently, and once every minute thereafter	20° C	100/21°	25	1 + 70	somewhat higher (N + 0,5)
Agfa APX 100 Old	30 sec permanently, and once every minute thereafter	20° C	125/22°	22	1 + 50	high (N + 1,5)
AGFAPHOTO APX 100 NEW	30 sec permanently, and once every minute thereafter	20° C	100/21°	11	1 + 70	normal (N)
AGFAPHOTO APX 400 New	30 sec permanently, and once every minute thereafter	20° C	320/26°	12	1 + 50	normal (N)
Ilford Pan F+	twice after filling in, and twice every 2 minutes thereafter	20° C	12/12°	11	1 + 70	normal (N)
Ilford Pan F+	30 sec permanently, and once every 5 minutes thereafter	20° C	16/13° - 20/14°	15	1 + 100	very low cond. N - 1,5 diff. N - 3,5
Ilford Pan F+	30 sec permanently, and once every 5 minutes thereafter	20° C	25/15°	20	1 + 100	normal (N)
Ilford Pan F+	30 sec permanently, and once every 5 minutes thereafter	20° C	25/15°	30	1 + 100	high (N + 1,5)
Ilford Pan F+	30 sec permanently, and once every 3 minutes thereafter	24° C	32/16°- 40/17°	27	1 + 100	very high cond. N + 1,5 diff. N + 2,5
Ilford FP4+	30 sec permanently, and once every minute thereafter	20° C	50/18°	10.5	1 + 70	normal (N)
Ilford FP4+	30 sec permanently, and twice every 5 minutes thereafter	24° C	80/20°- 100/21°	20.5	1 + 100	normal (N)
Ilford HP5+	30 sec permanently, and once every minute thereafter	20° C	200/24°	12	1 + 50	normal (N)
Ilford HP5+	30 sec permanently, and once every 3 minutes thereafter	22° C	200/24°	20.5	1 + 70	normal (N)
Ilford HP5+	30 sec permanently, and once every 5 minutes thereafter	24° C	200/24°	25.5	1 + 100	normal (N)
Ilford Delta 100	twice after filling in, and once every 2 minutes thereafter	20° C	40/17°	5.5	1 + 35	normal (N)
Ilford Delta 100	30 sec permanently, and once every minute thereafter	20° C	50/18°	10	1 + 70	normal (N))
Ilford Delta 100	30 sec permanent, dann alle 5 min 2x	24° C	64/19° - 80/20°	20	1 + 100	normal (N)
Ilford Delta 400	30 sec permanently, and once every 5 minutes thereafter	24° C	250/25°	30	1 + 70	very high diff. N + 2
Ilford Delta 3200	30 sec permanently, and once every minute thereafter	20° C	320/26°	10.5	1 + 50	low cond. N – 0,5
Ilford Delta 3200	30 sec permanently, and once every 30 sec thereafter	20° C	320/26°	11.5	1 + 50	low cond. N + 0,5 diff. N – 1,5
Ilford Delta 3200	30 sec permanently, and twice every minute thereafter	20° C	500/28°	15	1 + 24	somewhat higher (N + 0,5)
Kodak T-Max 100	30 sec permanently, and once every minute thereafter	20° C	50/18°	10.5	1 + 50	normal (N)
Kodak T-Max 400	30 sec permanently, and once every minute thereafter	20° C	200/24°	10	1 + 50	normal (N)
Kodak T-Max 400	30 sec permanently, and once every minute thereafter	22° C	250/25°	22	1 + 70	high (N+1,5)
Kodak T-Max 400	30 sec permanently, and once every 2 minutes thereafter	20° C	250/25°	13	1 + 35	very high (N + 2)
Kodak Tmax P3200	30 sec permanently, and once every minute thereafter	20° C	800/30°	15	1 + 50	normal (N)

Developing Chart SPUR ACUROL-N, Page 2

Manufacturer Film	Inversion Tact	Tempe-rature	Filmspeed ISO	Developing Time[min]	Dilution	Contrast
Kodak Tri X 400	30 sec permanently, Then once every minute	20° C	250/25°	15	1 + 50	normal (N)
Kodak Tri X 400	30 sec permanently, then twice every 2. min	20° C	400/27°	15	1 + 35	somewhat higher (N + 0,5)
Kodak Tri-X 400	30 sec permanently, then once every minute	20° C	640/29°	12	1 + 24	high (N + 1)
Kodak Tri-X 400	30 sec permanently, stand development for 3 minutes, then once every minute	20° C	1000/31°	16	1 + 24	very high (N + 2)
Fuji Neopan Acros 100	30 sec permanently, then once every minute	20° C	50/18°	13.5	1 + 70	normal (N)
Fuji Neopan 400	30 sec permanently, then once every minute	20° C	200/24°	13	1 + 50	normal (N)
Rollei Superpan 200	30 sec permanently, then once every minute	20° C	40/17°	13,5	1 + 50	normal (N)
Rollei Retro 80 S	twice after filling in, and once every 2 minutes thereafter	20 ° C	20/14°	10 - 11	1 + 70	normal (N)
Rollei RPX 25	30 sec permanently, then once every minute	20 ° C	20/14°	11	1 + 70	normal (N)
Rollei RPX 100	30 sec permanently, then once every minute	20° C	100/21°	12	1 + 70	normal (N)
Rollei RPX 400	30 sec permanently, and once every minute thereafter	20 ° C	200/24°	10 - 11	1 + 50	normal (N)
Rollei Ortho 25 Old emulsion 135 Film	Do prewash! 30 sec permanently, then once every minute	22 ° C	25/15°	11	1 + 70	normal (N)
Rollei Ortho 25 Old emulsion 120 Film	Do prewash! 30 sec permanently, and twice every minute thereafter	22 ° C	20/14°	10	1 + 70	normal (N)
Rollei Ortho 25 Old emulsion 120 Film “incredible sharpness”	Do prewash! 1 min permanently, and twice every 5 minutes thereafter	22° C	20/14°	27	1 + 100	normal (N)
Rollei Ortho 25 Old emulsion 4 x 5“ Sheet Film	Do prewash! 30 sec permanently, then twice every minute	22 ° C	20/14°	15	1 + 100	normal (N)
Rollei Ortho 25 plus 135 Film	30 sec permanently, then twice each 2. min	20° C	100/21°	15	1 + 70	normal (N)
Rollei Ortho 25 plus 120 Film	30 sec permanently, then twice every minute	20° C	64/19°	12,5	1 + 70	normal (N)
Rollei Ortho 25 plus 4 x 5“ Sheet Film	30 sec permanently, then twice every minute	20° C	64/19°	17	1 + 100	normal (N)
Rollei Infrared	30 sec permanently, then once every minute	20° C	40/17°	13.5	1 + 50	normal (N)
Kentmere 100	30 sec permanently, then once every minute	20° C	64/19°	10	1 + 70	normal (N)
Kentmere 400	30 sec permanently, then once every minute	20° C	200/24°	11.5	1 + 50	normal (N)
ADOX Silvermax	30 sec permanently, then once every minute	20° C	50/18°	10	1 + 50	normal (N)
Polypan F	30 sec permanently, then once every minute	20° C	32/16°	10	1 + 70	normal (N)
Fomapan 100	30 sec permanently, then once every minute	20° C	80/20°	9	1 + 50	normal (N)
Fomapan 100	30 sec permanently, then once every minute	20° C	100/21	10	1 + 50	somewhat higher (N + 0,5))
Fomapan 100	30 sec permanently, then once every minute	20° C	125/22°	11	1 + 50	high (N + 1)
Fomapan 200	30 sec permanently, then once every minute	20° C	125/22°	11	1 + 50	normal (N)
Fomapan 400	30 sec permanently, then once every minute	20° C	160/23°	10	1 + 35	somewhat higher (N + 0,5))