

## PARANOL S

### Features and application

Paranol S is a 'compensating' developer based on p-Aminophenol. It is characterized by extremely high acutance and high emulsion speed yield – ideally suited for low to medium speed B/W negative films whose fine grain properties will be enhanced.

Paranol S works with wide exposure latitude and provides for a wide tolerance in processing. It is designed for processing in hand developer drums such as Jobo or Paterson. As a one shot developer the working solution cannot be re-used after mixing.

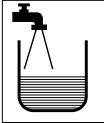

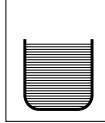
### Packaging

Paranol S is supplied in bottles with 0,25 l conc. for max. 25 films 135-36 or medium format 120.

### Mixing

Mix the working solution directly before use, as the dilution only keeps for a very short time.

The dilution varies according to the required contrast and preferred developing time: 1 part concentrate to 25 or 50 parts water:

	Water		Concentrate	=	Working Solution
		+		=	
<b>1 + 25</b>	961 ml		39 ml		1 l
<b>1 + 50</b>	980 ml		20 ml		1 l

For accurate measuring of the of the small concentrate quantity, we recommend to use a corresponding scaled measuring cylinder to maintain accuracy.

### Shelf life

Originally packed the concentrate has a shelf life of at least 2 years – once the bottles have been opened and they are tightly closed, the shelf life is at least 6 months. Tetenal Protectan gas can extend the storage life of partly filled bottles to prevent premature oxidation. A potential darkening of the developer concentrate within this time has no influence on the result.

The film developer concentrate Paranol when produced has a dark colour – a potential further darkening especially if the bottles are opened, is normal.

### Temperature

Developing is at room temperature, generally at 20°C. You can change the development time if higher or lower temperatures are used.

Depending on the used film and required dilution, the factor of the reduction or extension of the development time differs. The rule of thumb is factor 1.2 at 18°C and factor 0.85 at 22 °C and factor 0.75 at 24°C.

### Development times

The below table shows the development times for current standard films, each for the both dilutions 1 + 25 and 1 + 50. The development times have been determined to achieve a beta of approx. 0.65.

The indicated times are starting points that can be individually decreased or increased. An increase of the time generally results in a higher contrast.

## Agitation

Agitation: 30 seconds agitation while continuously moving the developer drum in the first 30 seconds, afterwards agitation every 30 seconds .

We do not recommend processing in rotary processors.

## Development times

Agitate the drum continuously for the first 30 seconds, afterwards agitate once every 30 second.

Film	Paranol S, 20°C		Film	Paranol S, 20°C	
	Time · Zeit · Temps Tempo · Tid · Czas			Time · Zeit · Temps Tempo · Tid · Czas	
	1 + 25	1 + 50		1 + 25	1 + 50
<b>KODAK</b>			<b>FOMA</b>		
TRI-X 400 / 27 DIN	9'	18'	Fomapan 100 Classic	4'	10'
T-MAX 100 / 21 DIN	11'	27'	Fomapan 200 Creative	5'	11'
T-MAX 400 / 27 DIN	7'	15'	Fomapan 400 Action	7'	15'
T-MAX 3200 / 36 DIN	8'	15'			
<b>FUJIFILM</b>			<b>ADOX</b>		
ACROS 100 / 21 DIN	6'	14'	Silvermax 100	13'	30'
Neopan 400	8'	22'	CHS Typ 2 100	8'	25'
<b>ROLLEI</b>			<b>AGFA</b>		
SUPERPAN 200 / 24 DIN	3'	8'	APX 100 NEW	11'	22'
Infrared 400 S / 27 DIN	3'	7'	APX 400	11'	30'
RETRO 100 / 21 DIN	18'	40'			
RETRO 400 S / 27 DIN	4'	7'			
RPX 100	9'	18'			
RPX 400	11'	28'			
<b>ILFORD</b>			<b>KENTMERE</b>		
DELTA 100 / 21 DIN	14'	40'	Kentmere 100	11'	27'
DELTA 400 / 27 DIN	12'	40'	Kentmere 400	14'	35'
DELTA 3200 / 36 DIN	23'	-			
PAN F 50 / 18 DIN	17'	36'			
FP4 125 / 22 DIN	11'	30'			
HP5 Plus 400 / 27 DIN	11'	25'			
SFX 200 / 24 DIN	5'	12'			