FOMAPAN 100 Classic

BLACK-AND-WHITE NEGATIVE FILM

In general

FOMAPAN 100 Classic is a panchromatically sensitized, black-and-white negative film designed for taking photographs. The film meets high requirements for low granularity, high resolving power and contour sharpness and a wide range of halftones. FOMAPAN 100 Classic has a nominal speed rating of ISO 100/21°, but due to its wide exposure latitude the film gives good results even when overexposed by 1 EV (exposure value) (as ISO 50/18°) or underexposed by 2 EV (as ISO 400/27°) without any change in processing, i.e. without lengthening the development time or increasing the temperature of the developer used.

To make prints or enlargements, Fomabrom- and Fomaspeed-type enlarging papers are recommended; however, all sorts of black-and-white enlargement papers can be used.

Speed

ISO 100/21°, 21° ČSN

Schwarzschild effect

Exposure (seconds)	*1/1000–1/2*	*1*	*10*	*100*
Lengthening of exposure	1x	2x	8x	16x
Correction of aperture number	0	-1	-3	-4

Processing

Safelighting

Total darkness or infrared light; for a short time an indirect safelighting can be used (using e.g. an Agfa 108 filter with 15 Watt lamp at a distance of not less than 75 cm.

Development

FOMAPAN 100 Classic can be processed in all common negative developers. Recommended development times are shown in the table below (the development times are related to development in a spiral developing tank - agitation or turning over continuously during the first 30 seconds, then during the first 10 seconds in every minute). In this way, medium-contrast negatives can be obtained.

Developer	*Development time (minutes)*	
	20 °C	*30 °C*
Fomadon LQN (1+10)	7 – 8	2,5
Fomadon R09 new (1+50)	8 – 9	–
Fomadon P	7 – 8	4
Fomadon Excel	5 –6	1.5
Kodak Xtol	5 – 6	1.5
Ilford Microphen–stock	5 – 7	2
Ilford Perceptol–stock	8	3.5
Ilford ID 11/ Kodak D76–stock	6 – 7	3
Tetenal Emofin Liquid	4 – 5	–

When the development time has elapsed, the film is recommended to be shortly rinsed in distilled water or dipped in a 2 % acetid acid solution for 10 seconds.

Fixing

At a temperature ranging from 18 to 25 °C for 10 minutes in any common type of an acid fixing bath, or for at least 3 minutes in Fomafix rapid fixer.

Washing

The film should be washed in running water: for 30 minutes and 15 minutes the temperature of water being below 15 °C and over 15 °C respectively.

It is recommended to finish the processing with the film being rinsed in distilled water, or dipped in a wetting agent solution.

Storage

Unexposed films should be stored in the original packaging in a cool, dry place (temperature ranging from 5 to 21 °C, relative humidity from 40 to 60 %), out of reach of harmful vapours, gases and ionizing radiations. Films stored in a refrigerator and a freezer should be acclimatized to room temperature for approx. 2 and approx. 6 hours respectively. Exposed films should be processed as soon as possible.

Packaging

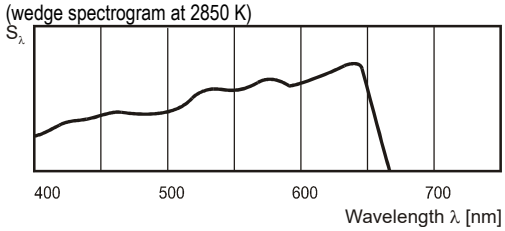
FOMAPAN 100 Classic is available in the following sorts:

– 120 rollfilm 60 mm wide, exlusively on a 120 spool; identification edge markings: „ULTRA 100“
– double-edge perforated 35 mm film in 135-36, 135-24 and 135-12 cartridges for 36, 24 and 12 exposures 24 x 36 mm; bulk lengths of 17, 30.5 and 50 m in a darkroom packaging; identification edge markings: „FOMAPAN 100“ or „ULTRA 100“
– sheet film (for large-format cameras) sized: 9 x 12, 10 x 15, 12 x 16.5, 13 x 18 and 18 x 24 cm in a box of 50 sheets.

Other sizes are subject of an agreement with the manufacturer.

Relative spectral sensitivity

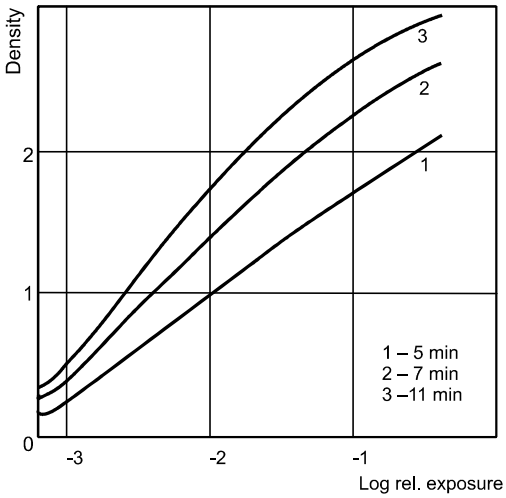
(wedge spectrogram at 2850 K)



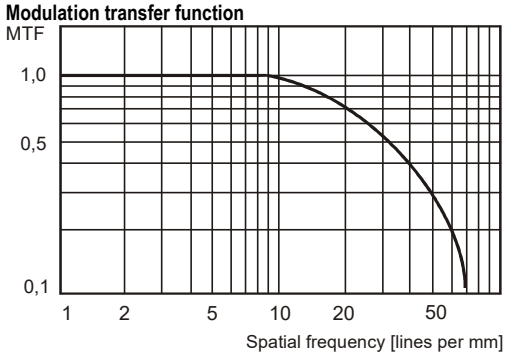
Characteristic curves

Exposure: Daylight (5500 K), 1/20 s

Developer: Microphen at 20 °C



Modulation transfer function



Resolving power

110 lines per mm

Granularity

RMS = 13,5 (Microphen at 20 °C, developed to γ = 0.6.
Measured at D = 1.0.

Base

The following bases are used for manufacturing the particular sorts of the film:

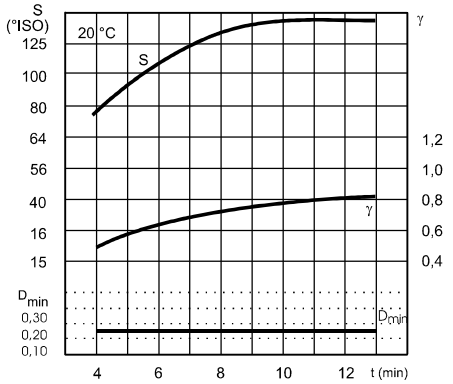
- 120 rollfilm - a bluish polyester base 0.1 mm thick, furnished with a matted colour backing which will decolourize during processing. The backing has anti-halation and anti-curling properties and prevents the incidence of Newton rings during enlarging.
- 35 mm film - a gray or gray-blue cellulose triacetate base 0.125 mm thick,
- sheet film - a clear polyester base 0.175 mm thick furnished with a matted colour backing which will decolourize during processing. The backing has anti-halation and anti-curling properties and prevents the incidence of Newton rings during enlarging.

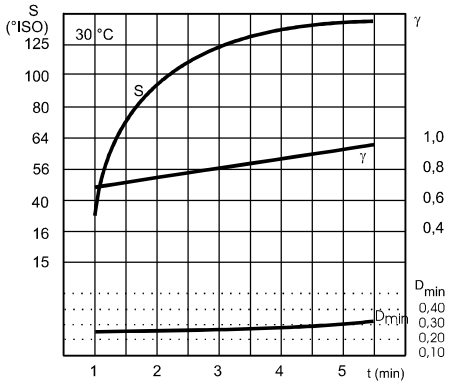
The product has been produced and marketed in conformity with a quality system according to the international standard EN ISO 9001:2000.

DEVELOPMENT CURVES FOR FOMAPAN 100 Classic

Ilford Microphen developer

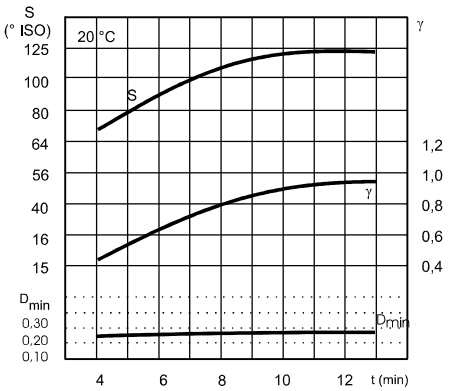
D_{min}/S/γ – development time curves at 20 and 30 °C
- daylight Tc = 5500 K
- spiral developing tank - agitation or turning over continuously during the first 30 seconds, then during the first 10 seconds every minute.

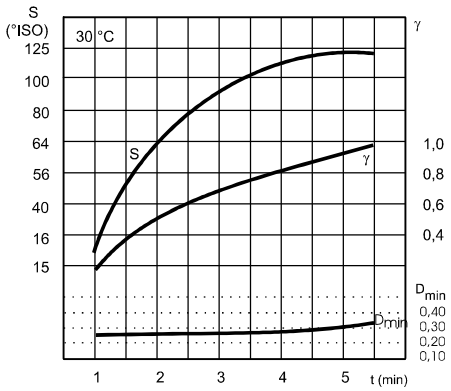




Ilford ID 11–stock
Kodak D 76 developer

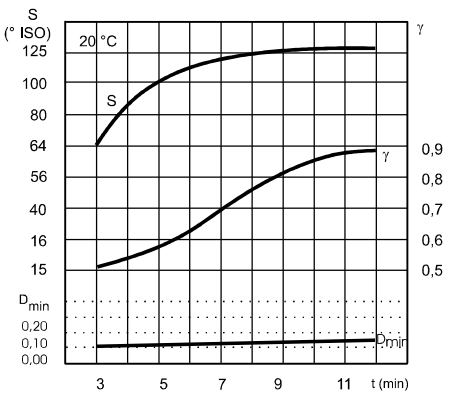
D_{min}/S/γ – development time curves at 20 and 30 °C
- daylight Tc = 5500 K
- spiral developing tank - agitation or turning over continuously during the first 30 seconds, then during the first 10 seconds every minute.

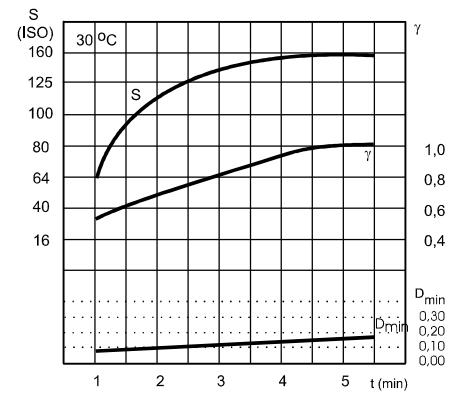




Fomadon Excel
Kodak Xtol developer

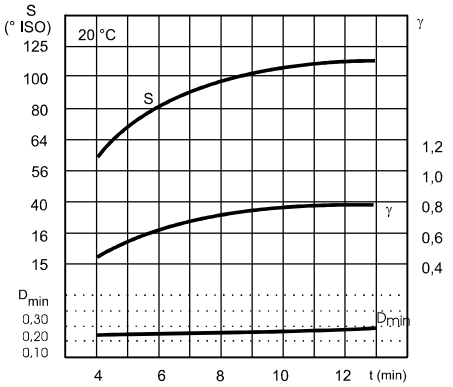
D_{min}/S/γ – development time curves at 20 and 30 °C
- daylight Tc = 5500 K
- spiral developing tank - agitation or turning over continuously during the first 30 seconds, then during the first 10 seconds every minute.

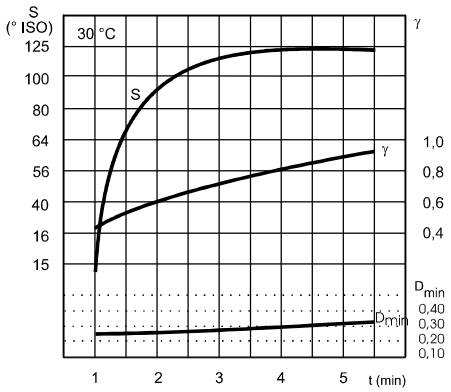




Fomadon LQN developer (1+10)

D_{min}/S/γ – development time curves at 20 and 30 °C
- daylight Tc = 5500 K
- spiral developing tank - agitation or turning over continuously during the first 30 seconds, then during the first 10 seconds every minute.





FOMA
BOHEMIA spol. s r.o.
501 04 Hradec Králové
Czech Republic
Tel.: +420 495 733 210
Fax: +420 495 733 376
foma@foma.cz
www.foma.cz; www.foma.eu