

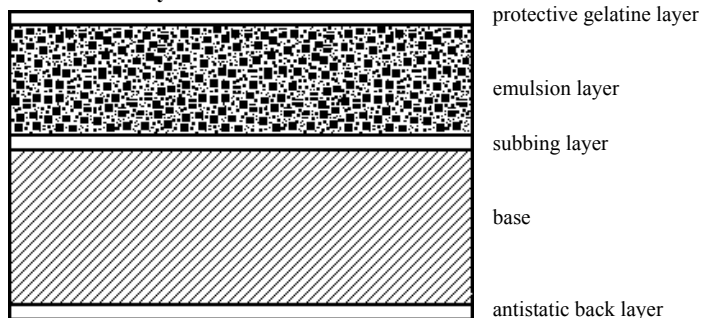
TECHNICAL INFORMATION

ORWO Universal Negative Film UN 54

Product description: ORWO Universal Negative Film UN 54 is a panchromatic medium speed black-and-white negative camera film for both outdoor and indoor usage. According to the ORWO Instruction 4185 the UN 54 film can be processed as black and white reversal film and be used to produce direct positives.

Base: Safety base, acetyl cellulose, 135 µm, grey coloured.

Structure of layers:



Availability of standard assortment:

width	length	perforation	K-Code
35 mm	305 m	N-4740 (BH 1866)	K-Code
35 mm	122 m	N-4740 (BH 1866)	K-Code
16 mm	122 m	0-2 RB-7605 (1RB 2994)	K-Code

further possibilities according to request

Storage:

<i>Raw Stock:</i>	up to 12 month:	18°C or lower
	more than 12 month:	13°C or lower
	recommended relative humidity:	50 to 70 %
<i>Exposed film:</i>	process as soon as possible	
<i>Processed film:</i>	store at ≤ 21°C or lower with 40 to 60 % relative humidity for normal periods	
	long term storage: according to the standards ISO 5466, SMPTE RP131 and ANSI IT9.11	

Substances such as sulphur dioxide and hydrogen sulphide, formaldehyde vapours, radioactive radiation, and X-rays have a negative influence on films.

Warranty: 24 months provided the storage conditions specified above have always been observed.

Exposure index: ISO 100 / 21°

The speed value refers to a developed UN 54 average gradient of 0.65. The exact exposure index depends on the prevailing shooting and processing conditions. Special features of light meters, shooting conditions, planned artistic effects and deliberate processing changes are to be taken into account in setting the lens aperture. Rehearsal screen tests are recommended.

Darkroom lighting: UN 54 should be processed in total darkness. If absolutely necessary, a safe light using an indirect 15 watt lamp can be used while processing, having an ORWO safe light filter no. 108 (dark green), Kodak no. 3 or Ilford no. 908, but a distance of at least 75 cm should be maintained.



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Processing:

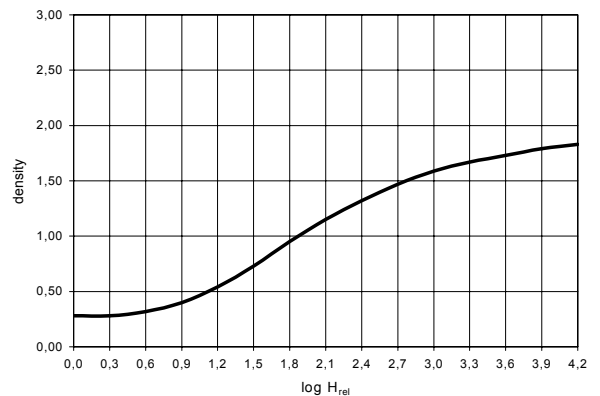
As *Negative Film* according to ORWO instruction 1182 (D96) to a recommended average gradient of 0,65 .

As *Reversal Film* according to ORWO instruction 4185 to a gradient of 1,1

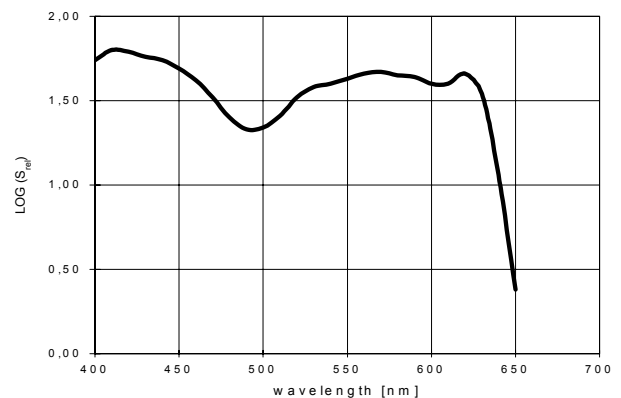
RMS-Granularity: A average value of 12 (read at a net visual diffuse density of 1,0 above the minimum density using a 48 µm aperture)

Factor of modulation transfer function m_{30} : $\geq 0,80$

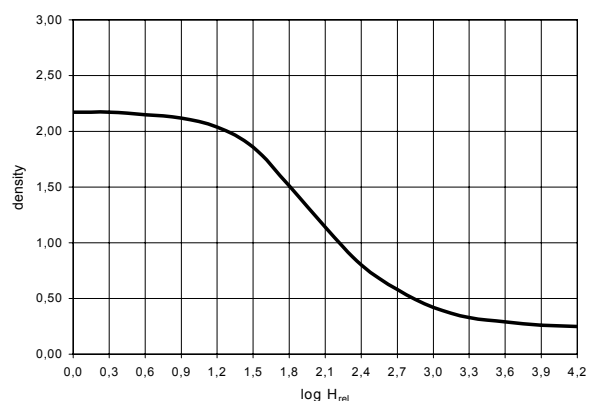
Characteristic curve UN 54: Processing ORWO instruction 1182



Relative spectral sensitivity of UN 54: Equal-energy spectrum



Characteristic curve UN 54 after the reversal processing: ORWO instruction 4185



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