

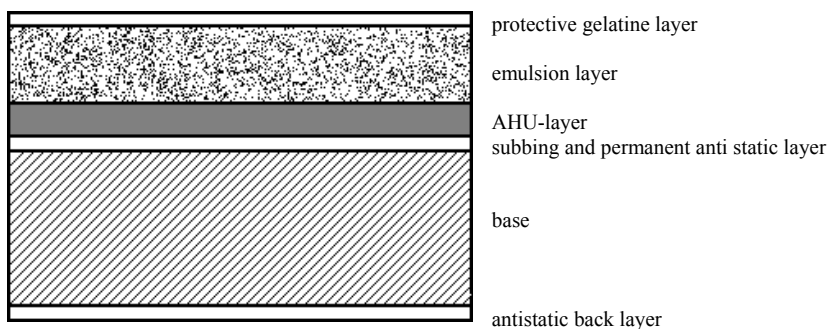
TECHNICAL INFORMATION

ORWO Duplicating Negative Film DN 21

Product description: ORWO duplicating negative film DN 21 serves as a film for the production of black & white intermediate negatives. Due to its panchromatic sensitisation this film can be used for duplicating from b& w master positives as well as from colour master positives producing well-balanced grey values referring to original colours. There is a special AHU-layer (Anti Halation Under layer) between the emulsion layer and the base. This AHU-layer guarantees an outstanding anti halation. The excellent photographic and physical properties enable the production of extraordinary black & white prints. In regarding to its polyester base the film is an ideal medium for long term storage.

Base: Safety base, polyester, 125 µm

Structure of layers:



Availability of standard assortment:



width	length	perforation
35 mm	610 m	P-4750 (KS 1870)
35 mm	610 m	N-4740 (BH 1866)
35 mm	305 m	P-4750 (KS 1870)
35 mm	305 m	N-4740 (BH 1866)

The Film is available with foot numbers or machine readable code. Further possibilities according to request.



Storage:

<i>Raw Stock:</i>	up to 12 month:	18°C or lower
	more than 12 month	14°C or lower
<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 as sulphur dioxide and hydrogen sulphide, formaldehyde vapours and radioactive radiation have a negative influence on films.

Warranty: 24 month to the a.m. storage conditions

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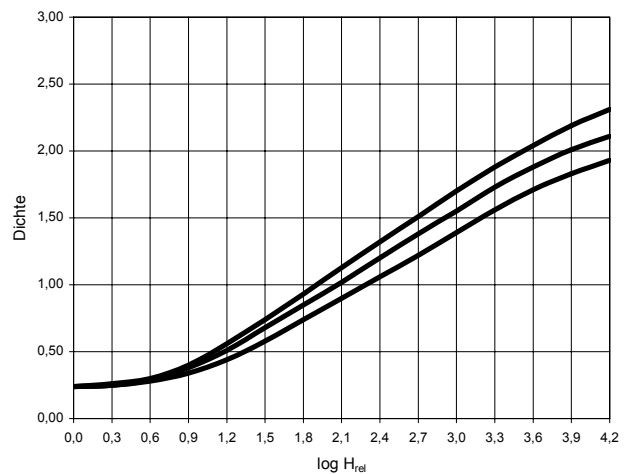
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Processing: According to ORWO instruction 1182 (D96) to a recommended average gradient of $g = 0,65$. Process immediately.

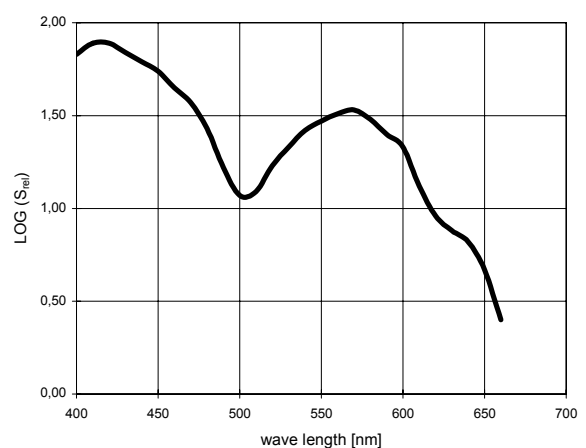
RMS-Granularity: Less than 9 (read at a net visual diffuse density of 1,0 above the minimum density using a 48 μm aperture)

Modulation transfer factor m_{30} : $\geq 0,80$

Characteristic curve DN 21: Processing ORWO instruction 1182,
processing time 4.5 min, 6.0 min, 7.5 min



Spectral sensitivity: For equal energy spectrum



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Darkroom lighting: Films should be processed in total darkness. If absolutely necessary, processing can be done at a light of a 15 watt-lamp (indirect) with 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 kept.