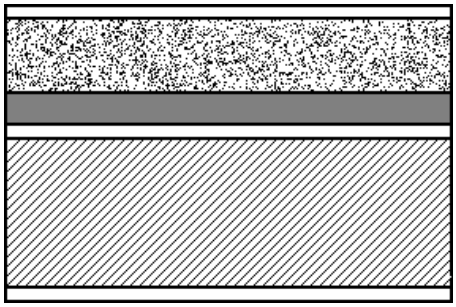
TECHNICAL INFORMATION

ORWO Sound Recording Film TF 12d

Product description: ORWO TF 12d has been designed to meet critical technical standards being demanded today by sound recording professionals. It is a black and white film of orthochromatic sensitivity, being characterized by superb quality attributes in high contrast, super fine grain, and ultra high definition.
Accordingly, the design is ideal for use with both digital and analogue technologies. It has the optimal spectral sensitivity necessary for high quality digital sound recording with DOLBY SR.D or DTS time code systems, and also for optimum exposure with incandescent and laser light sources being used in existing analogue sound recording.
The best possible degree of sharpness has been guaranteed by introducing a new AHU layer located between the film's clear base and its emulsion, and this clarifies to neutral during processing. A permanent anti static layer between the base and the AHU layer and an anti-static backing to the film supplies protection from dust and static discharge, while also improving film transport efficiency.

Base: Safety base, polyester 120 µm, clear

Structure of layers:



Availability of standard assortment:

width	length	perforation
35 mm	624 m	P-4740 (KS 1866)
35 mm	312 m	P-4740 (KS 1866)
16mm	312 m	1-0 RA-7605 (1RA 2994)

Further possibilities according to request

Storage:

Raw stock:	up to 12 month:	≤ 18°C
	more than 12 month:	≤ 13°C
	recommended relative humidity:	≤ 50 %
Exposed film:	process promptly	
Processed film:	storage 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 subject to the a.m. storage conditions.

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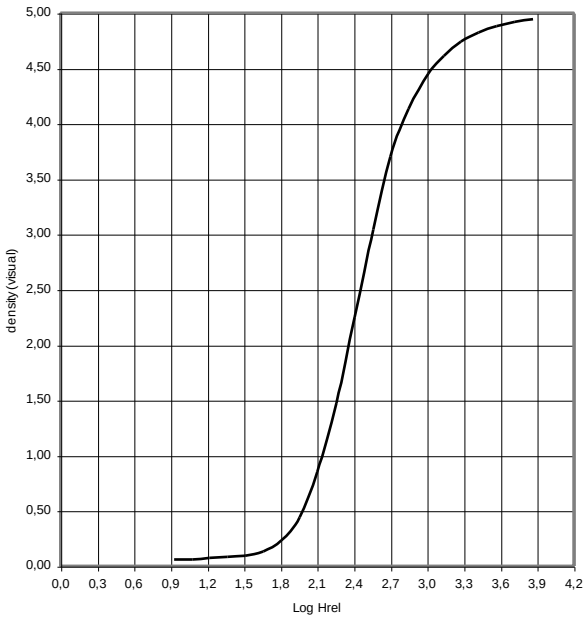
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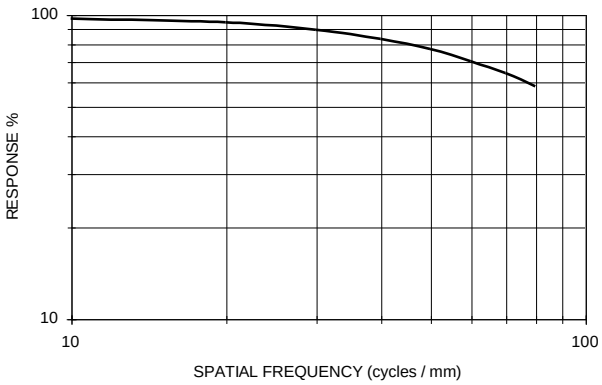
Processing: According to ORWO instruction 2182 (Kodak D97) / ca. 5 min
Process promptly after exposure.

Exposing:
Analogue sound track: The aim density of sound negatives and prints should be determined by a cross modulation test. The normal analogue visual negative density is between 2.20 und 3.30.
Digital sound track: The aim densities of negatives and positives are determined by making a series of density tests. The densities with best results by Dolby-quality-index should be select. The aim density for negatives and prints should be around 1.30.

Characteristic curve TF 12d: Processing ORWO instruction 2182 (Kodak D 97)
exposing green 10 µs



Modulation transfer function m_{30}:

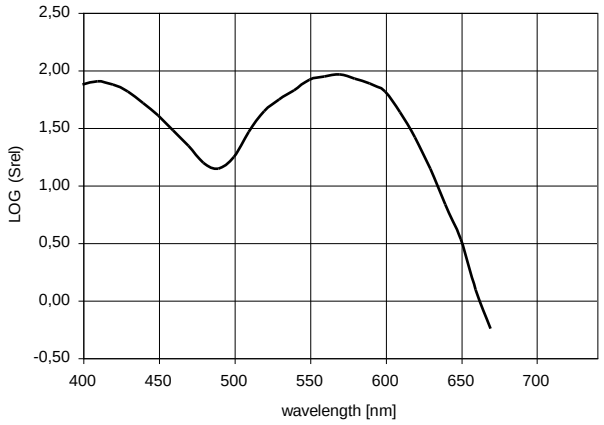


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Relative spectral sensitivity TF12d:



Darkroom lighting: Films should be processed in total darkness. Do not use a safelight.

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