

EASTMAN PLUS-X Reversal Film / 7276

1) Description

EASTMAN PLUS-X Reversal Film 7276 (16 mm) is a medium-speed, panchromatic black-and-white film, suitable for general exterior photography. It has a high degree of sharpness and good contrast. 7276 Film is characterized by excellent tonal gradation, and high resolving power. It can be used in interior photography also, with ample artificial illumination.

2) Base

EASTMAN PLUS-X Reversal Film/7276 has a grey acetate safety base with an additional anti-halation undercoat. The back side of the base contains an anti-static layer with a carnauba wax lubricant.

3) Darkroom Recommendations

Reversal Processing

All processing operations should be carried out in total darkness until development is 50 percent completed. If necessary, the film can be examined using a KODAK 3 Safelight Filter / dark green, with a 15-watt bulb, no closer to the film than 1.2 metres (4 feet).

Negative Processing

No safelight is recommended until after the stop bath. Unprocessed films must be handled in total darkness.

4) Storage

Store unexposed film at 13 C (55 F) or lower. For extended storage, store at -18 C (0 F) or lower. Process exposed film promptly. Store processed film according to the recommendations in NAPM IT9.11-1992: for medium-term storage (minimum of ten years), store at 25 C (77 F) or lower at a relative humidity of 20 to 50 percent; for extended-term storage (for preservation of material having permanent value), store at 21 C (70 F) or lower at a relative humidity of 20 to 30 percent.

For active use, store at 25 C (77 F) or lower, at a relative humidity of 50 +/- 5 percent. This relates to optimized film handling rather than preservation; static, dust-attraction and curl-related problems are generally minimized at the higher relative humidity. After usage, the film should be returned to the appropriate medium- or long-term storage conditions as soon as possible.

For more information about medium- and long-term storage, see NAPM IT9.11-1992, and KODAK Publications No. H-1, EASTMAN Professional Motion Picture Films (1992 Edition) and No. H-23, The Book of Film Care (1992 Edition).

5) Exposure Indexes

For recommended reversal processing:

Tungsten (3200K) - 40 Daylight - 50

Use these indexes with incident- or reflected-light exposure meters and cameras marked for ISO or ASA speeds or exposure indexes. These indexes apply for meter readings of average subjects made from the camera position or for readings made from a gray card of 18-percent reflectance held close to and in front of the subject. For unusually light- or dark-colored subjects, decrease or increase the exposure indicated by the meter accordingly.

For negative processing (gamma=1.0) in a typical motion picture negative developer, use the following exposure indexes:

Tungsten (3200K) - 20 Daylight - 25

When exposing in super 8 cameras through a KODAK WRATTEN Gelatin Filter No. 85, the effective speed is reduced to 32 for daylight. In automatic cameras, due to the cartridge speed and filter notching system, the film will be exposed as follows:

Daylight (no filter) - 50

Daylight (with filter) - 25

Tungsten (without filter) - 40

The film latitude will provide satisfactory results at these exposure levels.

6) Exposure Table-Tungsten Light

This table is based on EI-40 (tungsten) and reversal processing with a shutter speed of approximately 1/50 second, 24 frames per second (fps), and 170-degree shutter opening:

Lens Aperture	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8
Footcandles Required ¹	63	125	250	500	1000	2000

¹ At 18 frames per second, use 3/4 of the footcandles (fc) shown. When the film is used as a negative material, the values specified should be doubled.

Lighting Contrast

The recommended ratio of key-light-plus-fill-light to fill light is 2:1 or 3:1. However, you may use 4:1 or greater when a particular look is desired.

7) Filter Factors

KODAK WRATTEN Filter No.	3	8	11	12	15	21	23A	25	29	96 ¹
Daylight	1.5	2.0	4	2.0	2.5	3	5	10	40	8

¹ For use in bright sunlight to reduce the exposure without modifying color rendering or depth of field. This filter which has a neutral density of 0.90 provides a reduction in exposure equivalent of 3 full stops.

8) Reciprocity Characteristics

(Recommended Reversal Process at 68 F (20 C))

Exposure Time: (second)	1/10,000	1/1,000	1/100	1/10	1
Exposure Adjustment:	+1/2 Stop	none	none	none	none

9) Reversal Processing

This film can be processed with KODAK Reversal Liquid Chemicals or with solutions prepared according to the formulas presented in KODAK Publication No.H-24.15 Manual for Processing EASTMAN Motion Picture Films, Module 15.

NOTICE! : Observe precautionary information on product labels and on Material Safety Data Sheets.

10) Negative Processing

Rewind Equipment

Operation	Processing Solution ¹	Time for 68° F (20° C)	Operation 85° F (29.4° C) ²
Prebath	PB-3	4 min	4 min
Rinse	Water ³	2 min	2 min
Develop	D-19	8 min	6 min
Rinse	SB-5	4 min	4 min
Fix	F-5	14 min	10 min
Wash	Water	10 min	8 min
Dry		As Required	As Required

¹ Replenishment is not recommended. Fresh solutions should be used after each roll of film has been processed.

² Processing temperatures above 85 F (29.4 C) are not practical.

³ In rinsing and in washing, the water should either run into the tank continuously or be replaced after each complete winding cycle.

11) Identification

After processing, the product code numbers 7276, emulsion and roll number identification, emulsion letter designator PXR, and KEYKODE number are visible along the length of the film.

12) Image Structure

The modulation-transfer curves, the diffuse rms granularity, and the resolving-power data were generated from samples of 7276 Film exposed with tungsten light and processed in the recommended reversal process at 20 C (68 F). For more information on image-structure characteristics, see KODAK Publication No H-1, EASTMAN Professional Motion Picture Films.

Diffuse rms Granularity¹: 9

Resolving Power²:

¹Read at a gross diffuse visual density of 1.0, using a 48-micrometre aperture.

²Determined according to a method similar to the one described in ISO 6328-1982, Photography--Photographic Materials-Determination of ISO Resolving Power.

ISO RPL	50 lines/mm	(TOC 1.6:1)
ISO RP	125 lines/mm	(TOC 1000:1)

13) Available Roll Lengths

For information on film roll lengths, check Kodak's Motion Picture Films for Professional Use price catalog or see a Kodak sales representative in your country.

14) Graphs³

MTF

A) (11-77)

NOTE: These photographic modulation-transfer values were determined by using a method similar to the one described in ANSI Standard PH2.39-1977(R1990). The film was exposed with the specified illuminant to spatially varying sinusoidal test patterns having an aerial image modulation of a nominal 35 percent at the image plane, with processing as indicated. In most cases, the photographic modulation-transfer values are influenced by development-adjacency effects and are not equivalent to the true optical modulation-transfer curve of the emulsion layer in the particular photographic product.

Characteristic

B) (7-69)

Spectral Sensitivity

C) (7-71)

NOTE: The Kodak materials described in this publication for use with EASTMAN PLUS-X Reversal Film / 7276 are available from dealers who supply Kodak products. You can use other materials, but you may not obtain similar results.

The contents of this Tinet publication are subject to change without notice.

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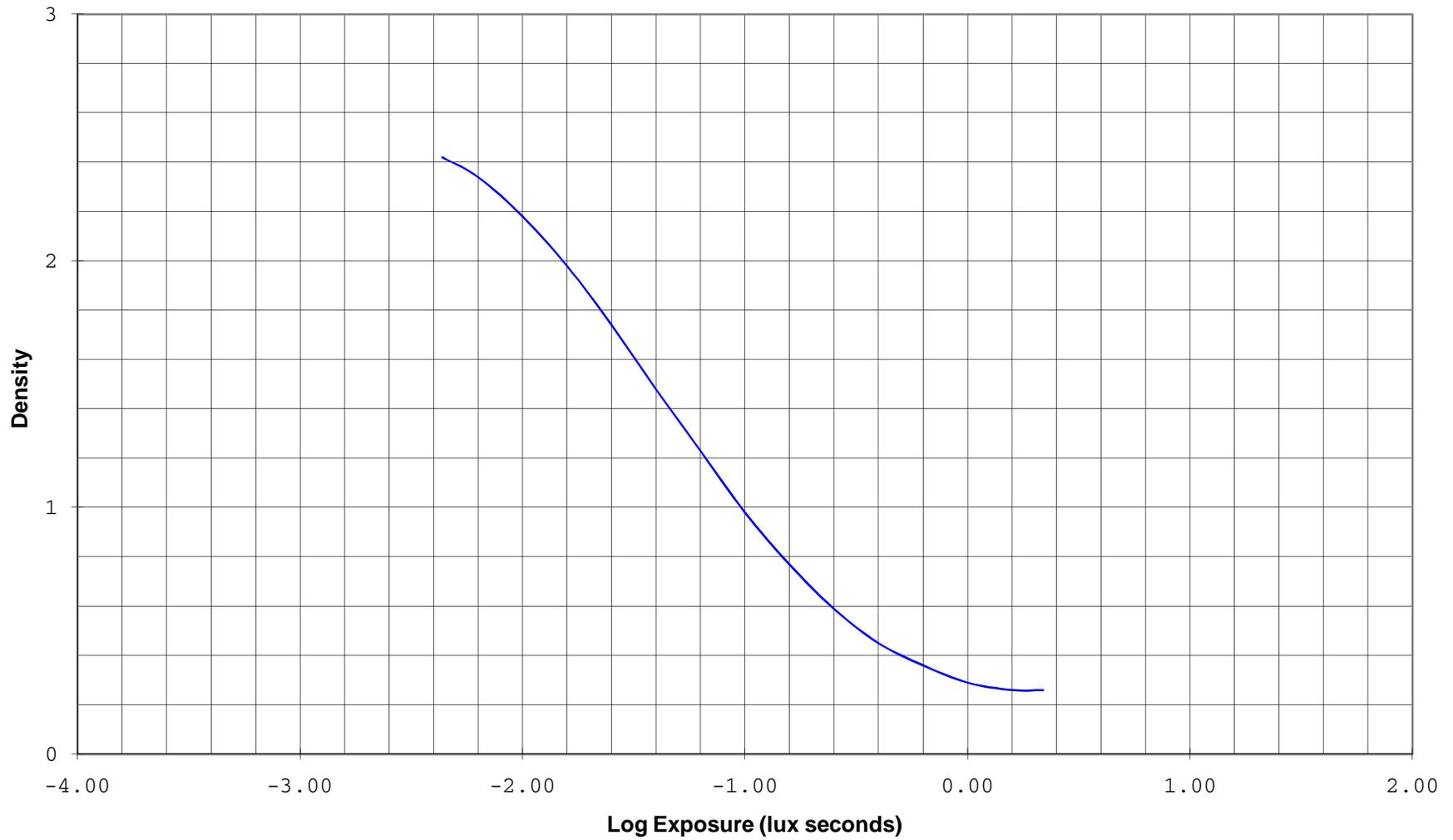
Motion Picture and Television Imaging
Eastman Kodak Company - Rochester, NY 14650

End of MPTVI Data Sheet

³NOTICE: While the data presented are typical of production coatings, they do not represent standards which must be met by Kodak. Varying storage, exposure, and processing conditions will affect results. The company reserves the right to change and improve product characteristics at any time.

T10243B 7-69
CHARACTERISTIC, For Publication

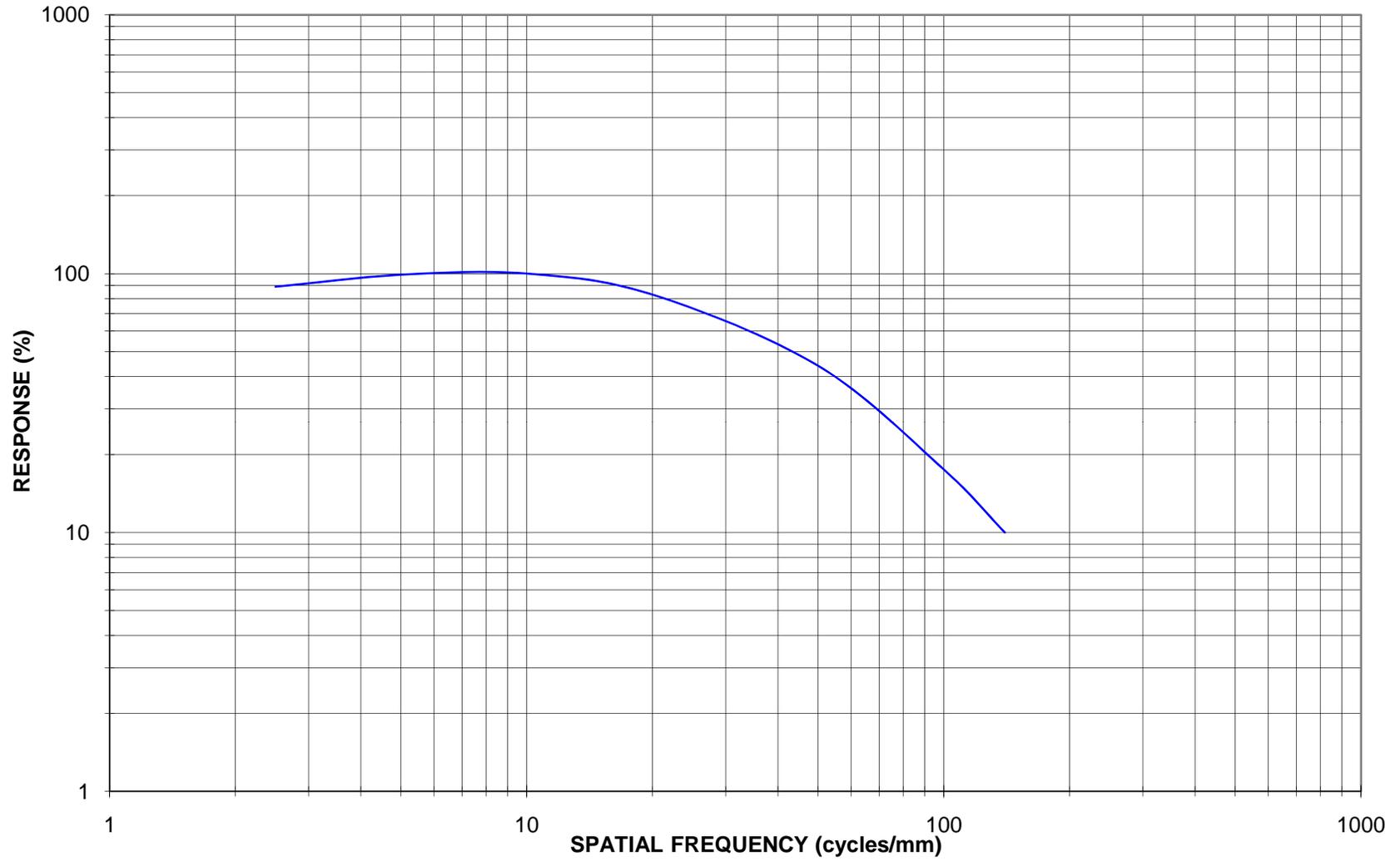
EASTMAN PLUS-X Reversal Film 7276
Daylight 1/25 sec; Recommended Reversal process at 68F (20C);
Diffuse visual



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T10243A 11-77
MTF, For Publication

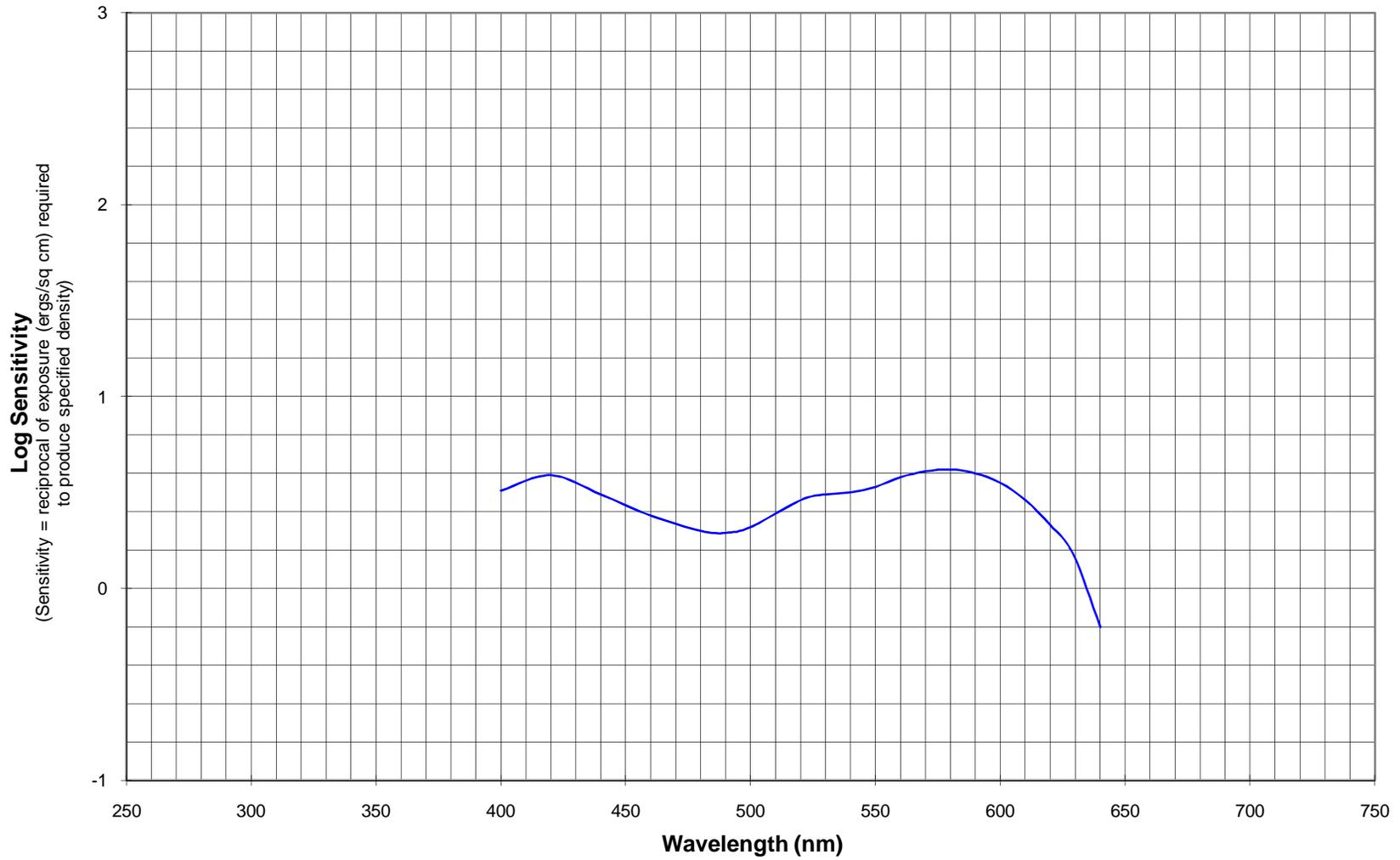
EASTMAN PLUS-X Reversal Film 7276
Tungsten; Recommended Reversal Process at 68F(20C);
Diffuse visual



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TI-243C 7-71
SPECTRAL SENSITIVITY, For Publication

EASTMAN PLUS-X Reversal Film 7276
Effective exp 1.4 sec; Recommended Reversal Process at 68F(20C);
Diffuse visual; D=1.0 Gross Density



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