

EASTMAN EKTACHROME High Speed Film (Tungsten) 7250™



DESCRIPTION

EASTMAN EKTACHROME High Speed Film 7250 is a very high-speed, color reversal camera film that is intended for use in low-light situations. It is balanced for tungsten light, but you can use it with other light sources with the appropriate filters. This film has high resolving power. Applications include color news photography, nighttime sporting events, industrial photography with existing light, and high-speed photography both by daylight and artificial light.

The processed original camera film is ready for projection; and because it is balanced for projection at 5400 K, it is suitable for television broadcast as well. You can also make color duplicates on EASTMAN EKTACHROME Print Film 7399™.

You can expose this film at effective speeds ranging from 1/2 to 2 times the normal exposure indexes with little loss in quality. In situations where some loss in quality is acceptable, you can decrease the normal exposure index by the equivalent of 2 or 3 stops. When the film is exposed at other than the normal exposure index, inform your processing laboratory so that they can make compensations in the processing.

BASE

This film has a clear acetate safety base.

DARKROOM RECOMMENDATIONS

Handle this film in total darkness until after the stop bath following first development. If you must read illuminated dials or meters during the first development, use a safelight with a KODAK No. 3 Safelight Filter / dark green, but do not shine the light directly on the film. You can do the remaining steps in a normally lighted room.

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 10°C (50°F) or lower at a relative humidity of 20 to 30 percent; for extended-term storage (for preservation of material having permanent value), store at 2°C (35°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 use, return the film to the appropriate medium- or long-term storage conditions as soon as possible.

For more information about medium- or long-term storage, see NAPM IT9.11-1992, and KODAK Publications H-1, *KODAK Motion Picture Film*, and H-23, *The Book of Film Care*.

EXPOSURE INDEX/DIN

Tungsten (3200 K)—400/27

*Daylight**—250/25

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.

* With a KODAK WRATTEN Gelatin Filter No. 85B

COLOR BALANCE

This film is balanced for exposure with tungsten illumination (3200 K). For other light sources, use the correction filters in the table below.

Light Source	KODAK Filters on Camera*	Exposure Index/DIN
Tungsten (3000 K)	WRATTEN Gelatin No. 82B	250/25
Tungsten (3200 K)	None	400/27
Tungsten photoflood (3400 K)	WRATTEN Gelatin No. 81A	320/26
Daylight (5500 K)	WRATTEN Gelatin No. 85B	250/25
White-flame arcs	WRATTEN Gelatin No. 85B	250/25
Yellow-flame arcs	None	400/27
Optima 32	None	400/27
Vitalite	WRATTEN Gelatin No. 85B	250/25
Fluorescent Cool White†	Color Compensating 60R + 10Y	100/21
Fluorescent Deluxe Cool White†	Color Compensating 20R + 20Y	200/24
Metal Halide H.M.I.	WRATTEN Gelatin No. 85B	250/25

* These are approximate corrections only. For critical work, perform tests to determine optimum filtration.

† These are starting-point recommendations. When you don't know the type of lamp, use a KODAK Color Compensating Filter CC40R with an exposure index of 200/24 for a trial exposure.

Note: Consult the manufacturer of high-intensity ultraviolet lamps for safety information on ultraviolet radiation and ozone generation.

EXPOSURE TABLE FOR TUNGSTEN LIGHT

At 24 frames per second (fps), 170° shutter opening.

Lens Aperture	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11	f/16	f/22
Footcandle required	6.3	12.5	25	50	100	200	400	800	1600

At 16 fps, use $\frac{2}{3}$ of the footcandle values; at 18 fps, use $\frac{3}{4}$.

Use this table for average subjects that contain a combination of light, medium, and dark colors. When a subject includes only pastels, use at least $\frac{1}{2}$ stop less exposure; dark colors require $\frac{1}{2}$ stop more exposure.

Suggested Exposure Settings for Existing-Light Subjects (Tungsten)

Subject	Footcandles (Incident Illumination)	Exposure (24 fps)
Sports Arenas	30 to 40	1/50 second f/3.6
Brightly Lit Streets	30 to 40	1/50 second f/3.6
Nightclub Street Areas	60 to 80	1/50 second f/5.1
Work Areas/Plant Interiors	60 to 80	1/50 second f/5.1

Lighting Contrast

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

RECIPROCITY

For an exposure time of 1/10,000 second, increase exposure by $\frac{1}{3}$ stop. You do not need to make any filter corrections or exposure adjustments for exposure times from 1/1,000 to $\frac{1}{10}$ second. At an exposure of 1 second, increase exposure by $\frac{1}{2}$ stop.

PROCESSING

Most commercial motion-picture laboratories provide a processing service for this film. There are no packaged chemicals available for preparing the processing solutions. See KODAK Publication No. H-24, *Manual for Processing EASTMAN Color Films, Process VNF-1 Specifications*, Module 11, and *Process RVNP Specifications*, Module 13, for more information on the solution formulas and the procedures for machine processing this film. Forced processing beyond 2 stops is not recommended.

IDENTIFICATION

After processing, the product code number 7250, emulsion and roll number identification, and EASTMAN KEYKODE Number are visible along the length of the film.

IMAGE STRUCTURE

The modulation-transfer curve, the diffuse rms granularity, and the resolving power data were generated from samples of Film 7250 exposed with tungsten light and processed as recommended in Process VNF-1 chemicals. For more information on image-structure characteristics, see KODAK Publication No. H-1, *KODAK Motion Picture Film*.

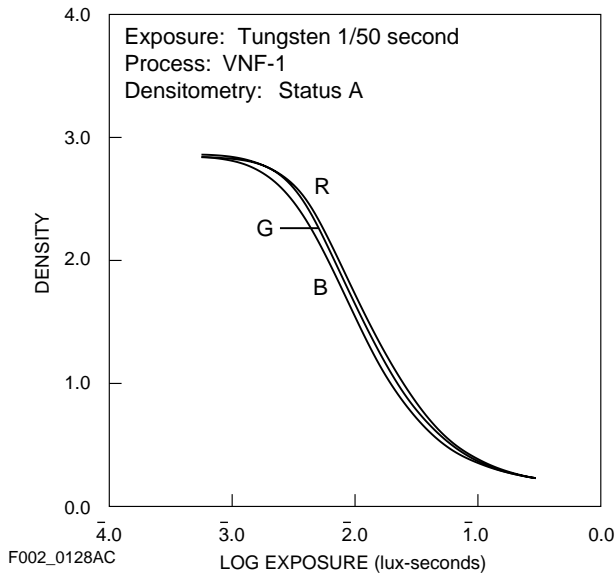
Diffuse RMS Granularity* 17

Resolving Power†	TOC 1.6:1	40 lines/mm
	TOC 1000:1	80 lines/mm

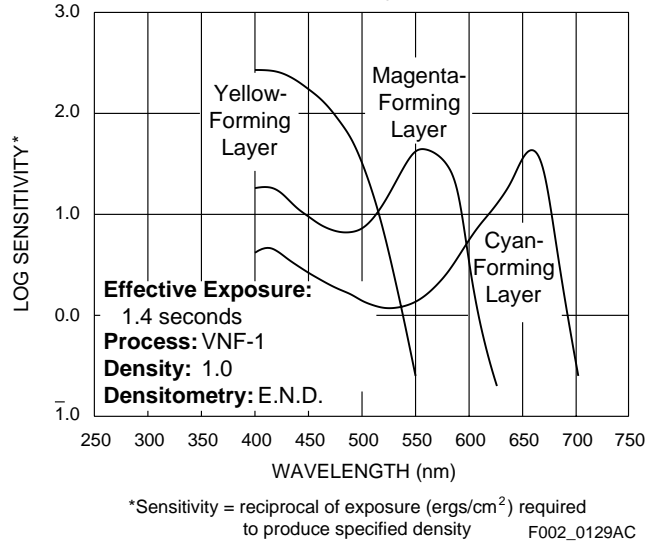
* Read with a microdensitometer (red, green, blue), using a 48-micrometre aperture.

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

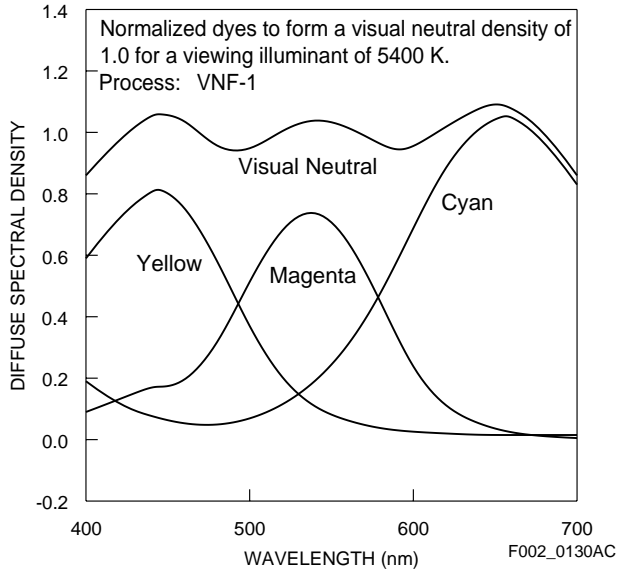
Characteristic Curves



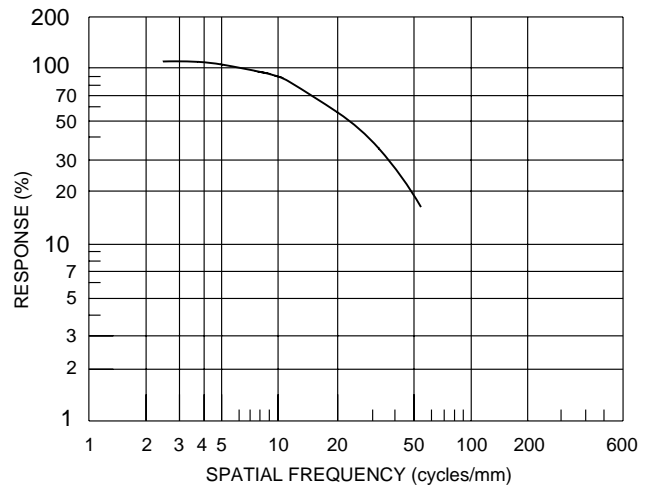
Spectral-Sensitivity Curves



Spectral-Dye-Density Curves



Modulation-Transfer Curve



Note: 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.

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, these 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.

LABORATORY AIM DENSITY (LAD) CONTROL METHOD

To maintain optimum quality and consistency in the final prints, the laboratory must carefully control the color timing, printing, and duplicating procedures. To aid in color timing and curve placement, time the negative originals relative to the Laboratory Aim Density (LAD) Control Film supplied by Eastman Kodak Company. The LAD Control Film provides both objective sensitometric control and subjective verification of the duplicating procedures used by the laboratory.

In the LAD control method,* the electronic color analyzer used for color timing is set up with the LAD Control Film to produce a gray video display of the LAD patch, corresponding to 1.0 neutral density (gray) on the print. The negative printing original is then scene-to-scene timed. There are specific LAD values for each type of print or duplicating film that the original can be printed on. For print films, the LAD patch is printed to a neutral gray of 1.0 visual density. For duplicating films, the specified aims are at the center of the usable straight-line portion of the sensitometric curve of the film.

* The LAD control method is described in the paper "A Simplified Motion-Picture Laboratory Control Method for Improved Color Duplication," by John P. Pytlak and Alfred W. Fleischer in the October 1976 SMPTE Journal. Also refer to KODAK Publication No. H-61, *LAD—Laboratory Aim Density*.

FILM-TO-VIDEO TRANSFER

When you transfer the film directly to video, you can set up the telecine using the negative Telecine Analysis Film (TAF) supplied by Eastman Kodak Company. The TAF consists of a neutral density scale and an eight-bar color test pattern with a LAD gray surround.

The TAF gray scale provides the telecine operator (colorist) with an effective way to adjust subcarrier balance and to center the telecine controls before timing and transferring a film. The TAF color bars provide the utility of electronic color bars, even though they do not precisely match the electronically generated color bars. Using the TAF will help you to obtain optimum quality and consistency in the film-to-video transfer.

For more information, see KODAK Publication H-822, *KODAK Telecine Analysis Film User's Guide*.

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AVAILABLE ROLL LENGTHS

For information on film roll lengths, check Kodak's *Professional Motion Imaging Price Catalog* or see a Kodak sales representative in your country.

KODAK LOCATIONS

FOR DIRECT ORDERING IN THE UNITED STATES:

1-800-621-FILM

ATLANTA, GEORGIA

4 Concourse Parkway
Suite 300
Atlanta, Georgia 30328-6105
Information: 800-800-8398

CHICAGO, ILLINOIS

815 West Van Buren, Suite 320
Chicago, Illinois 60607
Information: 312-492-1423

DALLAS, TEXAS

11337 Indian Trail
Dallas, Texas 75229
Information: 972-481-1170
312-492-1423

HOLLYWOOD, CALIFORNIA

6700 Santa Monica Boulevard
P. O. Box 38939
Hollywood, California 90038-1203
Information: 323-464-6131

NEW YORK, NEW YORK

360 West 31st Street
New York, New York 10001-2727
Information: 212-631-3450

LATIN AMERICAN REGION

8600 NW 17th Street, Suite 200
Miami, Florida 33126
Information: 305-507-5656

FOR DIRECT ORDERING IN CANADA:

1-800-621-FILM

MONTREAL, CANADA

Kodak Canada Inc.
4 Place du Commerce, Suite 100
Ile des Soeurs
Verdun, Quebec, Canada, H3E 1J4
Information: 514-761-7001

TORONTO, CANADA

Kodak Canada Inc.
3500 Eglinton Avenue West
Toronto, Ontario, Canada, M6M 1V3
Information: 416-761-4922

VANCOUVER, CANADA

Kodak Canada Inc.
4185 Still Creek Drive, Suite C150
Burnaby, British Columbia, Canada, V5C 6G9
Information: 604-570-3526

KODAK ON-LINE AT:

<http://www.kodak.com/go/motion>



**Professional
Motion Imaging**