EASTMAN EKTACHROME Film (Daylight) 7239™

DESCRIPTION

EASTMAN EKTACHROME Film 7239 (Daylight) is a high-speed color reversal film intended for photography under low-level daylight illumination. Among its many applications are news photography, sporting events, and high-speed photography. The processed original camera film is ready for projection; because it is balanced for projection at 5400 K, it is suitable for television broadcasting.

You can expose this film at effective film speeds ranging from ½ to 2 times the normal exposure indexes with little loss in quality. For emergency situations when some loss in quality is acceptable, increase the normal exposure index by the equivalent of 2 to 3 stops. When you expose the film at other than the normal exposure index, tell the processing laboratory so they can adjust the processing.

The processed camera original on EASTMAN EKTACHROME Film (Daylight) is meant for direct projection; however, you can make color duplicates on EASTMAN EKTACHROME Print Film 7399™.

BASE

This film has a clear acetate safety base.

DARKROOM RECOMMENDATIONS

Handle unprocessed film in total darkness until after the stop bath following first development. You can do the remaining operations in a normally lighted room. Use a safelight with a KODAK Safelight Filter No. 3 / dark green to illuminate dials, meters, etc, during first development; do not shine the light directly on the film.

STORAGE

Store *unexposed film* at 13˚C (55˚F) or lower. Process *exposed film* promptly. Store *processed film* at 21˚C (70˚F) or lower at a relative humidity of 40 to 50 percent for normal commercial storage. For more information on long-term storage, see KODAK Publications No. H-1, *KODAK Motion Picture Film*, and No. H-23, *The Book of Film Care*.

COLOR BALANCE

This film is balanced for daylight exposure. For other light sources, use the correction filters in the table below.

Light Source	KODAK Filters on Camera*	Exposure Index/DIN
Daylight (5500 K)	None	160/23
Tungsten (3000 K)	WRATTEN Gelatin No. 80A	40/17
Tungsten lamps (3200 K)	WRATTEN Gelatin No. 80A	40/17
Tungsten photoflood (3400 K)	WRATTEN Gelatin No. 80B	50/18
Metal halide H.M.I.	None	160/23
White-flame arcs	None	160/23
Yellow-flame arcs	WRATTEN Gelatin No. 80A	40/17
Optima 32	WRATTEN Gelatin No. 80A	40/17
Vitalite	None	160/23
Fluorescent Cool White†	Color Compensating 30M	100/21
Fluorescent Deluxe Cool White†	Color Compensating 20B	100/21

* These are approximate corrections only. Make final corrections during printing.

† These are starting-point recommendations for trial exposures. When you don't know the type of fluorescent lamps, use a CC20M filter with an exposure index of 100/21.

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

EXPOSURE INDEX/DIN

Daylight—160/23

Tungsten (3200 K)*—40/17

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.

EXPOSURE TABLE FOR DAYLIGHT

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
Footcandles required	16	32	63	125	250	500	1000

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 ½ stop less exposure; dark colors require ½ stop more exposure.

Lighting Contrast

The recommended ratio of key-light-plus-fill-light to fill light is 2:1 or 3:1; you may use a 4:1 ratio if you want a special look.

RECIPROCITY CHARACTERISTICS

You do not need any filter or exposure adjustments for exposure times from 1 second to 1/10,000 second.

PROCESSING

This film may be processed in Process VNF-1, using either ferricyanide or persulfate bleach, and in Process RVNP. Force processing beyond 2 stops is not recommended.

EASTMAN EKTACHROME Film can be processed by the individual user, if desired. For information on procedures for machine processing the film, see KODAK Publication No. H-24, *Manual for Processing EASTMAN Motion Picture Films*.

IDENTIFICATION

The words “Eastman VND Safety Film” is latent-image printed along the edge of the film.

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, negative originals should be timed 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.

FILM TO VIDEO TRANSFER

When you transfer the film directly to video, you can set up the telecine with a 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 obtain optimum quality and consistency in the film-to-video transfer.

For more information, see KODAK Publication No. H-822, *KODAK Telecine Analysis Film User’s Guide*.

IMAGE STRUCTURE

The modulation-transfer curve, the diffuse rms granularity, and the resolving-power data were generated from samples of 7239 Film exposed to daylight and processed as recommended in Process VNF-1. For more information on image-structure characteristics, see KODAK Publication No. H-1, *KODAK Motion Picture Film*.

Diffuse RMS Granularity* 14

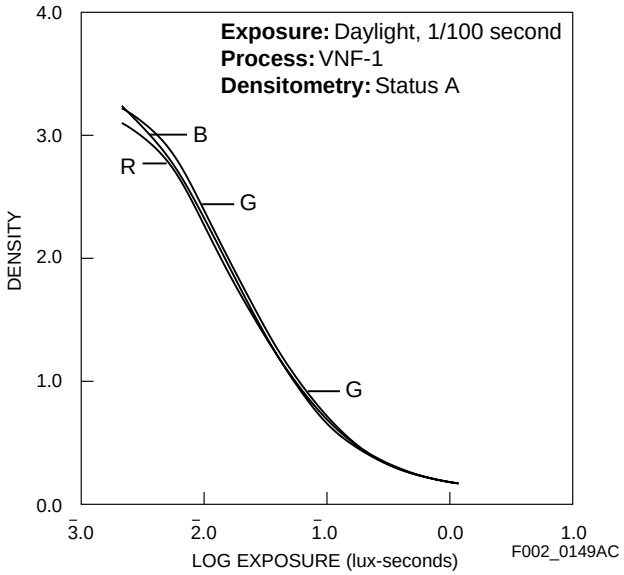
Resolving Power†	TOC 1.6:1 TOC 1000:1	40 lines/mm 100 lines/mm

* Read at a net diffuse visual density of 1.0, using a 48-micrometer aperture.

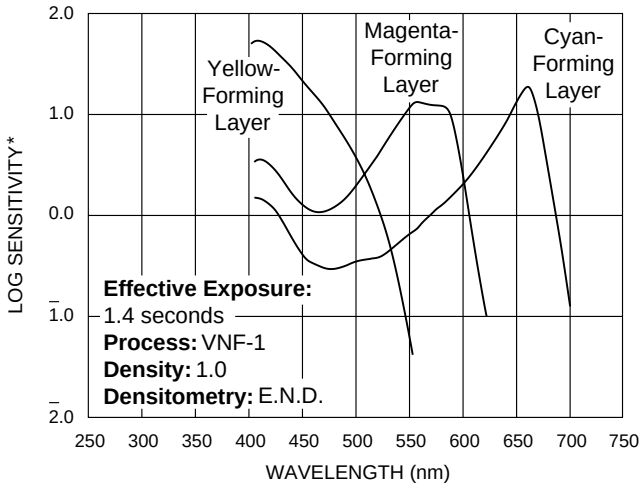
† Determined according to a method similar to the one described in ISO 6328-1982, *Photography—Photographic Materials—Determination of ISO Resolving Power.*

* 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.*

Sensitometric Curves



Spectral-Sensitivity Curves



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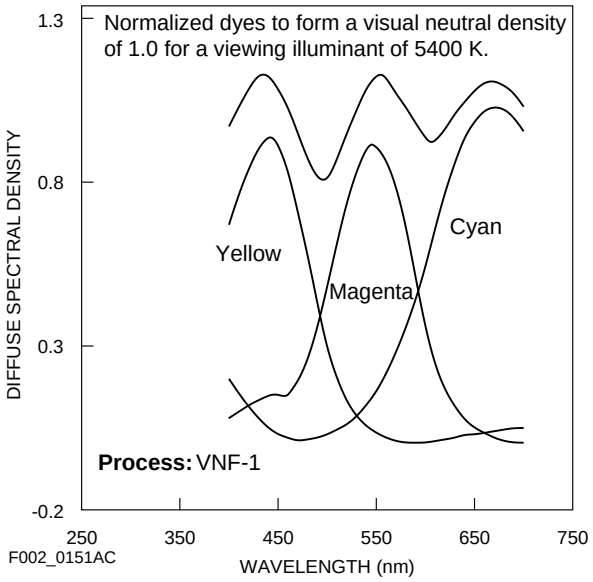
*Sensitivity = reciprocal of exposure (ergs/cm^2) required to produce specified density

Spectral-Dye-Density Curves



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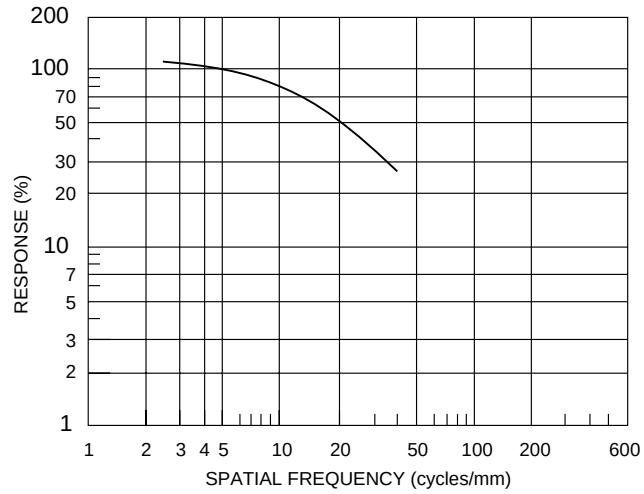
Modulation-Transfer Curve



F002_0148AC

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.

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.

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
1le 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

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