

# EASTMAN EXR 50D

## Color Negative Film 5245™ / 7245™



### DESCRIPTION

EASTMAN EXR 50D Film 5245 and 7245 is a low-speed daylight-balanced color negative camera film with micro-fine grain, very high sharpness, and high resolving power. It features wide exposure latitude and accurate tone reproduction. The emulsion contains a colored-coupler mask for good color reproduction in release prints.

### BASE

This film has an acetate safety base with rem-jet backing.

### DARKROOM RECOMMENDATIONS

Do not use a safelight. Handle unprocessed film in total darkness.

### STORAGE

Store *unexposed film* at 13°C (55°F) or lower. For extended storage, store it at -18°C (0°F) or below. 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 long-term storage, store it at 2 to 10°C (35 to 50°F) at 15- to 30-percent relative humidity. 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*.

### EXPOSURE INDEX

*Daylight* —50

*Tungsten\** (3200 K) —12

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.

### COLOR BALANCE

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

Light Source	KODAK Filters on Camera*	Exposure Index
Daylight (5500 K)	None	50
Tungsten (3000 K)	WRATTEN Gelatin No. 80A	12
Tungsten lamps (3200 K)	WRATTEN Gelatin No. 80A	12
Tungsten photoflood (3400 K)	WRATTEN Gelatin No. 80A	12
White-flame arcs	Color Compensating 20Y + 10C	32
Yellow-flame arcs	WRATTEN Gelatin No. 80C	20
Optima 32	WRATTEN Gelatin No. 80A	12
Vitalite	None	50
Fluorescent Cool White†	Color Compensating 20M + 10B	32
Fluorescent Deluxe Cool White†	Color Compensating 30B + 10C	20
Metal Halide H.M.I.	None	50

\* 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 20.

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

\* With a KODAK WRATTEN Gelatin Filter No. 80A.

## 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	f/16
Footcandles required	50	100	200	400	800	1600	3200	6400

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

You do not need to make any filter corrections or exposure adjustments for exposure times from 1/1000 to 1 second.

## PROCESSING

Most commercial motion-picture laboratories provide a processing service for this film. See KODAK Publication No. H-24, *Manual for Processing KODAK Motion Picture Films, Module 7, Process ECN-2 Specifications*, for more information on the solution formulas and the procedures for machine processing this film. There are prepackaged kits available for preparing the processing solutions. For information on EASTMAN ECN-2 Kit Chemicals, check Kodak's *Professional Motion Imaging Price Catalog*.

## IDENTIFICATION

After processing, the product code numbers 5245 (35 mm) or 7245 (16 mm), emulsion and roll number identification, and EASTMAN KEYCODE Numbers, and internal product symbol are visible along the length of the film. The letter designation K appears along the edge of the processed film; the designation N appears along the edge of the 35 mm film for travelling matte photography.

## 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 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 negative KODAK Telecine Analysis Film (TAF). 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 H-822, *KODAK Telecine Analysis Film User's Guide*.

## IMAGE STRUCTURE

The modulation-transfer curves, the diffuse rms granularity, and the resolving-power data were generated from samples of 5245 and 7245 Film exposed with daylight and processed as recommended in Process ECN-2 chemicals. For more information on image-structure characteristics, see KODAK Publication No. H-1, *KODAK Motion Picture Film*.

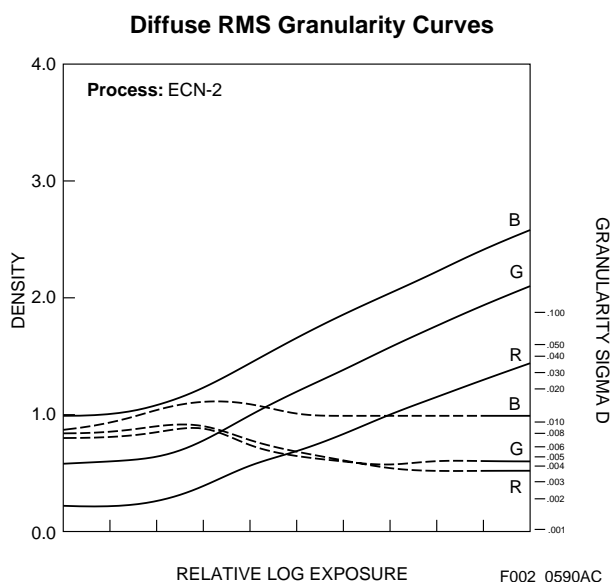
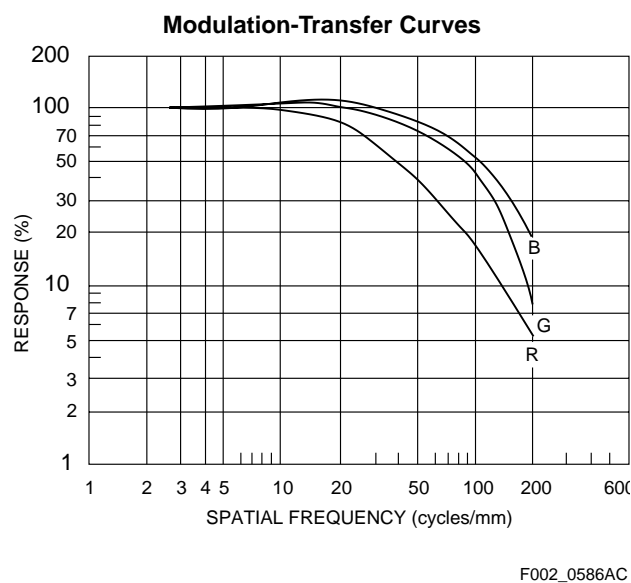
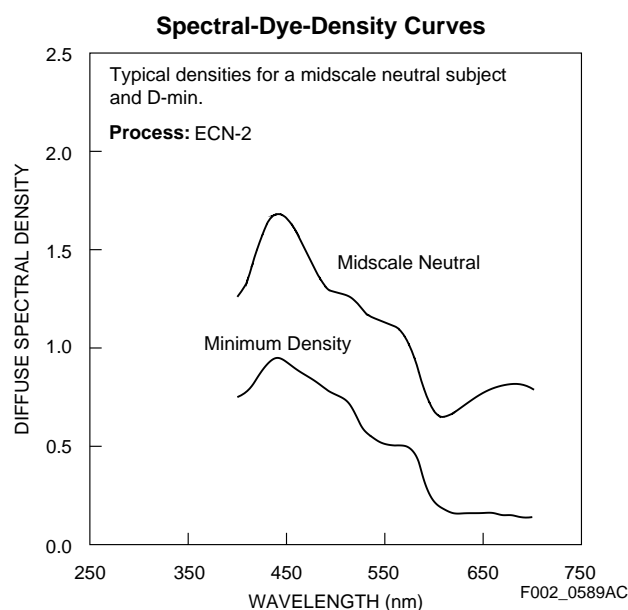
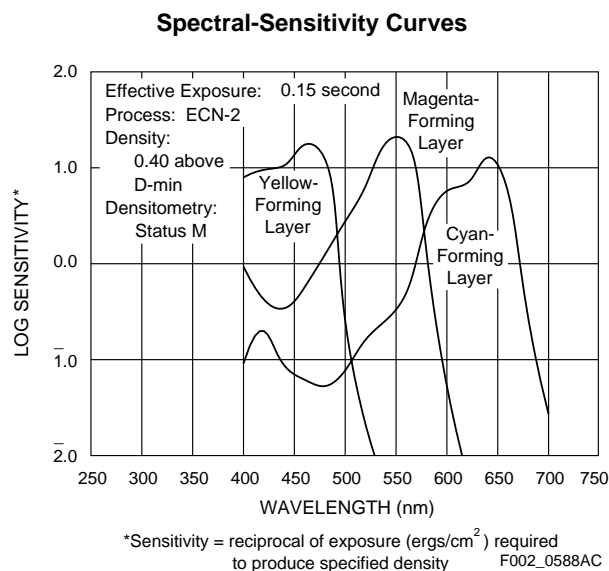
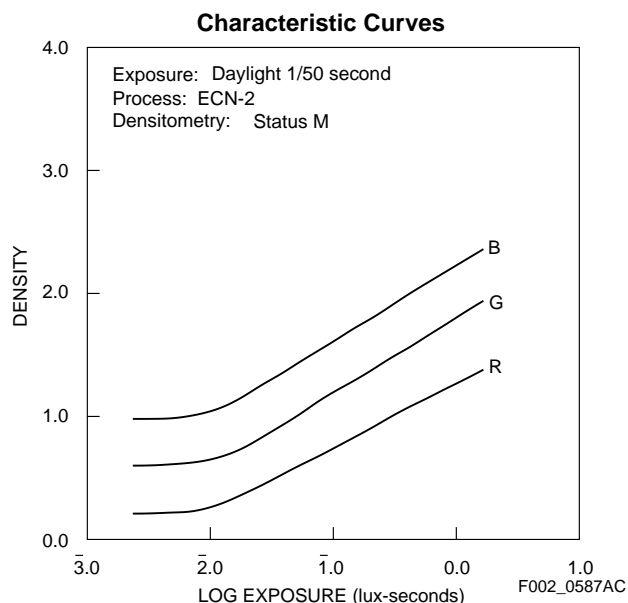
**Diffuse RMS Granularity\*** Less than 5

Resolving Power†	TOC 1.6:1	50 lines/mm
	TOC 1000:1	100 lines/mm

\* Read at a net diffuse visual density of 1.0, 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*.

\* 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*.



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 60 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.

# EASTMAN EXR 50D Color Negative Film 5245™ / 7245™

---

## AVAILABLE ROLL LENGTHS

For information on film roll lengths, check Kodak's *Professional Motion Imaging Price Catalog* or contact Kodak 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 30328-5379  
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: 972-481-1150 or 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 REGIONAL OFFICE

8600 NW 17<sup>th</sup> 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  
Ile des Soeurs  
Verdun, Quebec, H3E 1J4, Canada  
Information: 514-761-3481

### TORONTO, CANADA

Kodak Canada Inc.  
3500 Eglinton Avenue West  
Toronto, Ontario, M6M 1V3, Canada  
Information: 416-766-8233

### VANCOUVER, CANADA

Kodak Canada Inc.  
4185 Still Creek Drive  
Burnaby, British Columbia, V5C 6G9, Canada  
Information: 604-320-1777

### KODAK On Line At:

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

**KODAK SHOOTSAVER Express Film Delivery  
Service (U.S. Only) 1-800-404-2016 (Visa or  
MasterCard only—service fee applies)**



**Professional  
Motion Imaging**