

EKTACHROME EF Film (Type B)

5242 (35mm) & 7242 (16mm)

Eastman



- Sharp • Fine grain
- Wide exposure latitude
- Brilliant, saturated colors

New...universal high-speed color film for color TV news

New EKTACHROME EF Film, Type B, makes it possible and practical to film *all* the news in color. EKTACHROME EF is a universal film. It's balanced for tungsten light, so you can use it indoors without a filter, or outdoors under daylight conditions with an 85 or 85N series filter for conversion to the proper color balance and exposure.

EKTACHROME EF Film is fast (E.I. 125) so you can use it under tough, available-light situations. If you need more light, try rating it at 250. You'll notice very little loss in quality. For "impossible-but-must-have" situations, you'll get amazingly good images at 500 and even 1000. Naturally, for best results, use this film at its normal index. Compensation for other indices is made by varying the time in the first developer.

Color rendition in new EKTACHROME EF Film, compared to the old ER Film, has been significantly improved, too. Reds are redder—don't tend toward orange. Yellows are more lemony. In fact, all the colors are more brilliant and more saturated.

By far the most impressive improvements have been made in this film's image-forming characteristics. Granularity and sharpness have been improved by 2 or 3 orders, providing superb image quality on the screen and on the video tube.

The foregoing improvements in EKTACHROME EF Film are further enhanced by the new 100°F ME-4 process. It's fast . . . only 17½ minutes. It has only 12 steps, including washes. It's clean. And most important, it's easier and more dependable than the old ME-2A process because the chemistry has been simplified. Chemicals are ready to use—weighed, measured, mixed and packaged under strict Eastman quality control.

EKTACHROME EF Film, Type B, will find wide application in the industrial field for engineering sequential studies, high-speed performance evaluations, schlieren studies and general in-plant cinematography. It will also be useful for theatrical and non-theatrical work where the light level is extremely low or when extreme depth of field is called for. For single-system sound recording or for voice-over, this superb film is available with magnetic prestripping.

EXPOSURE INDEX:

*Tungsten—125**

*This value should be 100 for Photoflood Lamps

*Daylight—80***

**With KODAK WRATTEN Filter No. 85

The number after each light source is for use with meters and cameras marked for American Standard (ASA) Speeds or Exposure Indexes. This value applies if the meter reading is taken from the camera position and the subject has average reflectance, or if the reading is made on a gray card (such as KODAK Neutral Test Card) of about 18% reflectance, held close to, and in front of the subject facing the camera. For unusually light- or dark-colored subjects, the exposure should be decreased or increased respectively, from that indicated by the meter.

COLOR BALANCE:

This film is balanced for tungsten illumination at 3200K. When other light sources are used, correction filters, such as those indicated in the table below, are required.

LIGHT SOURCES AND FILTERS REQUIRED:

Light Source	Speed	Filter
Daylight	80	KODAK WRATTEN Filter No. 85
3200K Lamps	125	None
3400K Lamps	100	KODAK WRATTEN Filter No. 81A
Carbon Arcs M-R Type 170 150 Amp H.I. Arc	80	KODAK WRATTEN Filter No. 85
M-R Type 40 40 Amp Duarc	80	KODAK WRATTEN Filter No. 85

The number after each light source is for use with meters and cameras marked for American Standard (ASA) Speeds or Exposure Indexes.

ILLUMINATION (INCIDENT-LIGHT) TABLE FOR TUNGSTEN LIGHT:

Number of foot-candles required at various lens apertures for an exposure of 1/50 second or a camera speed of 24 frames per second, 170° shutter opening.

Lens Aperture	f1.4	f2.0	f2.8	f4	f5.6	f8
Foot-candles	18	35	70	140	280	560

This table is for average subjects containing some light, some medium, and some dark colors. If a subject is composed entirely of very light pastel colors, at least one-half stop less exposure should be used. For dark colors at least one-half stop more exposure is recommended. Slight differences in lamp-to-subject distances affect illumination intensity. Do not move lamps after the final measurement has been taken.

TRIAL EXPOSURE SETTINGS FOR EXISTING-LIGHT SUBJECTS:

Sports Arenas—about 30 to 40 foot-candles of incident illumination—1/50 second at f2.0

Work Areas—Store Interiors—about 60 to 80 foot-candles of incident illumination—1/50 second at f2.8

RESOLVING POWER:*

Test-Object Contrast	1.6:1	1000:1
Lines per mm	36	80
Development	KODAK ME-4 Process	

*These values were determined as described in "A Simple Camera for the Measurement of Photographic Resolving Power," by J. H. Altman, *Photographic Science and Engineering*, Vol. 5, No. 1, pp. 17-20, January-February, 1961.

RMS GRANULARITY:*

15 (Gross Density of 1.0)

*This value represents 1000 times the standard deviation in density produced by the granular structure of the material when a uniformly exposed and developed sample is scanned by a densitometer having an optical system aperture of f2.0, and a circular scanning aperture 48 μ in diameter. The value is proportional to the sensation of graininess which would be perceived if the sample were viewed at a magnification of 12 \times .

The sensation of graininess will increase or decrease as the viewing magnification increases or decreases respectively. For example, if the viewing magnification is doubled, the value will be approximately doubled. For color materials, however, this change may not be directly proportional to the change in magnification and the resulting relative graininess may be different from that indicated by the granularity values furnished.

The graininess of a print made from a negative of given granularity is also affected by the printing operation. Among other things, granularity is changed roughly in proportion to the contrast of the print material. For example, if a negative of granularity value 10 is printed onto a material of contrast 2.0, the granularity of the resulting print will be approximately doubled to 20. These considerations are discussed by E. C. Doerner, *J. Opt. Soc. Am.* 52,669 (1962).

Provided that the threshold of the human eye is substantially exceeded in each case, it appears from the limited data available that a difference of about 6% in the effective value of RMS granularity corresponds to a just noticeable difference in the visual impression of graininess.

RECIPROCITY CHARACTERISTICS for E.I. = 125

Exposure time in seconds	1/100,000	1/10,000	1/1,000	1/100	1/10	1
Exposure Compensation	None	None	None	None	None	None
Filter Compensation	No Filter	No Filter	No Filter	No Filter	No Filter	No Filter

STORAGE OF FILM PRIOR TO EXPOSURE:

EKTACHROME EF Film which is to be stored for an extended period should be held at a temperature not exceeding 55°F. Upon removal from storage, ample time should be allowed for the film to reach equilibrium with the workroom conditions (about one hour) before the tape is removed from the can, in order to avoid condensation of moisture on the cold film from the atmosphere.

STORAGE OF FILM AFTER EXPOSURE:

The film should be processed soon after exposure.

PROCESSING:

Use KODAK ME-4 Process only.

EKTACHROME EF Film is sold without the processing charge included in the purchase price. The film may be processed by the individual user, if desired, and information on licensing arrangements for processing by continuous machine is available upon request.

ROLL LENGTHS, PERFORATIONS, CORES AND WINDINGS

5242 (35mm)

100 ft., camera spool, BH.1870 type perforations

SPECIAL ORDER

100 ft., camera spool, KS.1870 high-speed type perforations
200 ft., U core, BH.1870 type perforations
400 ft., U core, BH.1870 type perforations
400 ft., U core, KS.1870 high-speed type perforations
1000 ft., U core, BH.1870 type perforations

7242 (16mm)

90 ft., camera spool, perforated one edge, B wind, magnetic stripe
100 ft., camera spool, perforated two edges
100 ft., camera spool, perforated one edge, B wind
100 ft., camera spool, perforated two edges, high speed
200 ft., camera spool, perforated one edge, B wind, magnetic stripe
400 ft., T core, perforated two edges
400 ft., T core, perforated one edge, B wind, magnetic stripe
400 ft., T core, perforated two edges, high speed
1200 ft., Z core, perforated one edge, B wind, magnetic stripe

SPECIAL ORDER

50 ft., magazine, perforated two edges
200 ft., camera spool, perforated two edges
200 ft., camera spool, perforated one edge, B wind
200 ft., camera spool, perforated two edges, high speed
400 ft., T core, perforated one edge, B wind
400 ft., camera spool, perforated two edges
400 ft., camera spool, perforated two edges, high speed
1200 ft., Z core, perforated two edges
1200 ft., Z core, perforated one edge, B wind

For more detailed information about films, prices, credit terms and delivery—or for technical service—contact our nearest office.

MOTION PICTURE AND EDUCATION MARKETS DIVISION

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