

EKTACHROME EF Film (Daylight Type)

5241 (35mm) & 7241 (16mm)

Eastman



Sharp, fine grain...superb definition
E. I. 80-1280...extraordinary exposure latitude
Brilliant, saturated colors...especially reds and yellows

EKTACHROME EF Film is improvement! It represents vast improvement over the old ER Film, particularly in its image-forming characteristics. Although high in speed, EKTACHROME EF Film has remarkably fine grain. And it's sharp, too. Both granularity and sharpness characteristics have been improved by a factor of 2 or 3 orders over the film it replaces.

All colors are more brilliant and more saturated—particularly in the reds and yellows. Reds are redder—don't tend toward orange. Yellows are more lemony.

The wide exposure latitude of this Daylight film is extraordinary—E.I. 80-1280. This film can be pushed three stops under and one stop over with amazingly little sacrifice in graininess, sharpness and color quality. Of course, for best results, this high-speed color reversal film should be shot at its normal index of 160. Other indices are achieved by varying the time in the first developer.

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.

You'll find new EKTACHROME EF Film ideal for all daylight applications calling for short exposure times, or low light levels or extreme depth of field.

BASIC DAYLIGHT EXPOSURE

For average subjects in bright or hazy sunlight—24 frames per second at f32, 170° shutter opening.

Note: The use of a neutral density filter, such as the KODAK ND-3 or one of the series

of KODAK WRATTEN Neutral Density Filters, No. 96, will allow operation at a larger lens aperture opening. With a neutral density of .90 the lens can be opened three stops wider than without a filter.

EXPOSURE INDEX:

Daylight—160

Light Source	Speed	Filter
Daylight	160	None
3200K Lamps	40	KODAK WRATTEN Filter No. 80A
3400K Lamps	50	KODAK WRATTEN Filter No. 80B

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.

For meters which are equipped for measuring incident light, the following data will be found useful:

DAYLIGHT ILLUMINATION REQUIRED— INCIDENT LIGHT IN FOOT-CANDLES

Lens Aperture	f1.4	f2.0	f2.8	f4.0	f5.6	f8	f11
24 frames per second	14	28	55	110	225	450	900
16 frames per second	10	20	40	75	150	300	600

AIRBORNE SUBJECTS

If this film is to be used to photograph objects against a sky background, such as missiles or aircraft, a speed of 250 can be used as the basis of a trial exposure. A meter reading should be taken with the exposure meter pointed at the portion of the sky to be photographed. When the sky reading is set on the calculator dial, an appropriate combination of shutter speed and f-number can be read. For critical work, a series of test exposures should be made with the meter and camera equipment that will be used in the actual photography.

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. = 160

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	+1/3 stop
Filter compensation	No Filter	No Filter	No Filter	No Filter	No Filter	CC05C

*Includes recommended 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 an 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

5241 (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
1000 ft., U core, KS.1870 high-speed type perforations

7241 (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
200 ft., camera spool, perforated two edges, high speed
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
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
1200 ft., Z core, perforated two edges, high speed

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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