

EKTACHROME MS Film

Type 5256 (35mm) & Type 7256 (16mm)

Eastman



Fine grain! Sharp! Medium speed! Adjustable E.I.!

EKTACHROME MS Film is a fine-grain medium-speed film balanced for daylight. Its qualities of moderate speed, fine grain, good sharpness and excellent color rendition make it ideal for data and engineering analysis, high-speed camera applications and sports photography under conditions of low daylight illumination. People who are not primarily cinematographers will find the "adjustable" nature of its exposure index a real asset, for with EKTACHROME MS Film you can shoot first and calculate the E. I. later!

EKTACHROME MS Film is a color reversal film intended primarily for direct projection; however, acceptable prints can be made directly with EASTMAN Reversal Color Print Film or indirectly through the EASTMAN Internegative System.

EXPOSURE INDEX:

Daylight—64

This value is suitable for use with Weston, General Electric and similar exposure meters with or without the calculators for ASA 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.

BASIC DAYLIGHT EXPOSURE:

For average subjects in bright sunlight—24 frames per second at f16—22, 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. With a neutral density of .90 the lens can be opened three stops wider than without a filter.

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

ILLUMINATION (INCIDENT LIGHT) TABLE FOR DAYLIGHT:

Shutter speed approximately 1/50 second—24 frames per second.

Lens Apertures	f1.4	f2.0	f2.8	f4.0	f5.6	f8.0
Number of foot-candles required	35	70	140	280	560	1100

EXPOSURE FOR AIRBORNE SUBJECTS:

If the film is to be used to photograph objects against a sky background, such as missiles or aircraft, an Exposure Index of 80 can be used as a 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, the "f" number for 1/50 second (24 fps) can be read off. For critical work, a series of test exposures should be made with the meter and camera equipment which will be used in the actual photography.

FILTERS AND EXPOSURE INDEX VALUES FOR USE WITH OTHER LIGHT SOURCES:

In emergency situations, where other light sources must be used, filters and exposure index values such as those shown in the table below apply:

Light Source	Filter	Exposure Index
3200 K Tungsten Lamps	Filters No. 80B plus No. 82A	16
"CP" lamps (approx. 3350 K) or Photofloods	KODAK WRATTEN Filter No. 80B	25

RESOLVING POWER:*

Test-Object Contrast	1.6:1	1000:1
Lines per mm	35	80
Development	KODAK Process, ME-2A	

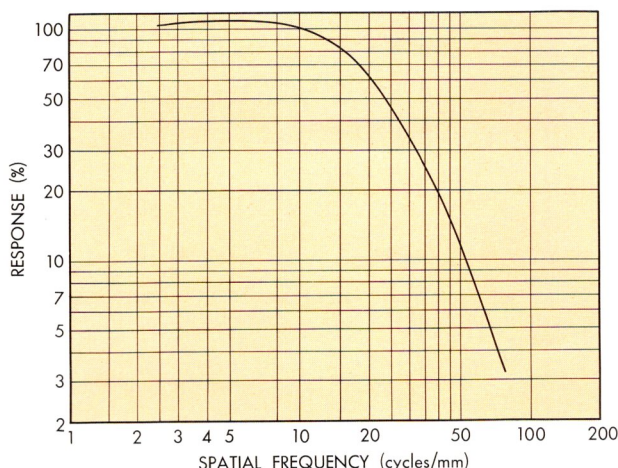
*These values were determined as described in "A Simple Camera for the Measurement of Photographic Resolving Power," by J. H. Altman, Phot. Science and Eng., Vol. 5, No. 1, pp. 17-20, Jan.-Feb. 1961.

MODULATION-TRANSFER CURVE:

Film exposed to white light and developed in the ME-2A Process. The modulation-transfer characteristics (formerly called sine-wave response) of a film indicate the effects that diffusion of light within the emulsion will cause on the microstructure of the image.

To obtain these data, test patterns having a sinusoidal variation in illuminance in one direction are exposed onto the film. The film is exposed to a number of such patterns, each having a different number of cycles per millimeter. After development, the photographic image is scanned in a microdensitometer. The modulation-transfer factor of the film at each of the test-object frequencies is calculated from the microdensitometer trace and is plotted as a function of frequency to give a modulation-transfer curve.

By multiplication of ordinates of the curve, the modulation-transfer data can be combined with similar data for the optical system with which it will be used, to predict the final image-detail characteristics.



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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200 Park Ave.
New York, N.Y. 10017
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RMS GRANULARITY:*

14 (Measurement made at a gross density of 1.0.)

*Root-mean-square (RMS) granularity values represent 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 a circular aperture 48 μ in diameter and an optical system aperture of f2.0 (12 $\times$ magnification). The number indicates the magnitude of the impression of graininess which would be produced if the sample were examined visually. From the limited data available, it would appear that a difference of 6% in the RMS granularity number would correspond to a just noticeable difference in the visual impression of graininess.

BASE:

Clear Safety.

STORAGE OF FILM PRIOR TO EXPOSURE:

EKTACHROME MS Film which is to be stored for an extended period should be held at a temperature not exceeding 55F. 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:

EKTACHROME MS 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

Type 5256 (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

Type 7256 (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
400 ft., T core, perforated two edges
400 ft., T core, perforated two edges, high speed
400 ft., T core, perforated one edge, B wind
400 ft., T 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 one edge, B wind, magnetic stripe
200 ft., camera spool, perforated two edges, high speed
400 ft., camera spool, perforated two edges, high speed
400 ft., camera spool, perforated two edges
1200 ft., Z core, perforated two edges
1200 ft., Z core, perforated one edge, B wind
1200 ft., Z core, perforated one edge, B wind, magnetic stripe
1200 ft., Z core, perforated two edges, high speed