

FILM

INFORMATION FROM KODAK

E-27

KODAK EKTACHROME 100 Professional Film

This color reversal film features very fine grain, very high sharpness, and high resolving power. It is designed for exposure with daylight or electronic flash. You can also expose it with photolamps (3400 K) or tungsten (3200 K) illumination with filters. It has an intended exposure range of 1/10,000 to 1/10 second.

This film is an excellent choice for commercial photography of clothing, fabrics, or textures, especially those with reflection characteristics that often adversely affect reproduction.

Use this film to produce color transparencies for viewing with 5000 K illumination (ANSI Standard PH2.30-1985, *Viewing Conditions—Photographic Prints, Transparencies, and Photomechanical Reproductions*). You can also use the transparencies for printing by photomechanical methods, by photographic methods of direct duplication and direct reversal printing, and by the dye-transfer process.

FEATURES

- Processed in Process E-6 chemicals
- Modified spectral sensitivity
- Excellent flesh-to-neutral color balance
- Grain and sharpness equal to those of KODAK EKTACHROME 64 Professional Film

BENEFITS

- Can be processed with other films for Process E-6 with no changes to the process or processing equipment
- Accommodates certain colors and fabrics (azo-dyed) that are usually difficult to photograph
- Accurately records neutral colors while maintaining pleasing flesh tones
- Same grain and sharpness with added speed

Code Notch (6122)



SIZES AVAILABLE

Rolls	Film Code	Base	CAT No.
135-36	5012	5-mil acetate	111 4404
120	6012	3.6-mil acetate	129 6300
120 (pro-pack of 5 rolls)	6012	3.6-mil acetate	159 0124
220 (pro-pack of 5 rolls)	6012	3.6-mil acetate	181 7857
35 mm x 100 ft (Spec 404)	5012	5-mil acetate	125 3400

Sheets	Size (inches)	Film Code	Base	CAT No.
10	4 x 5	6122	8.2-mil acetate	140 4474
50	4 x 5	6122	8.2-mil acetate	148 9822
10	5 x 7	6122	8.2-mil acetate	187 5590
10	8 x 10	6122	8.2-mil acetate	176 7276
50	8 x 10	6122	8.2-mil acetate	178 7407
10	11 x 14	6122	8.2-mil acetate	120 0112

DARKROOM RECOMMENDATIONS

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

KODAK FILM—FOR A PROFESSIONAL IMAGE



HANDLING AND STORAGE

Load and unload roll film in subdued light.

Store unexposed film in a refrigerator at 55°F (13°C) or lower in the original sealed package. To avoid moisture condensation on film that has been refrigerated, allow the film to warm up to room temperature before opening the package.

Store exposed film in a cool, dry place. Process film as soon as possible after exposure. Protect processed film from strong light, and store it in a cool, dry place. For more information about storing transparencies, see KODAK Publication No. E-30, *Storage and Care of KODAK Films and Papers—Before and After Processing*.

EXPOSURE

Use these speed numbers with meters and cameras marked for ISO, ASA, or DIN speeds or exposure indexes.

Light Source	KODAK WRATTEN Gelatin Filter	Effective ISO Speed
Daylight or Electronic Flash	None	100/21°
Photolamp (3400 K)	No. 80B	32/16°
Tungsten (3200 K)	No. 80A	25/15°

Daylight

Use the exposures in the table below for average frontlighted subjects from 2 hours after sunrise to 2 hours before sunset.

Lighting Conditions	Shutter Speed	Lens Opening
Bright or Hazy Sun on Light Sand or Snow	1/250	f/16
Bright or Hazy Sun (Distinct Shadows)*	1/125	f/16
Weak, Hazy Sun (Soft Shadows)	1/125	f/11
Cloudy Bright (No Shadows)	1/125	f/8
Open Shade† or Heavy Overcast	1/125	f/5.6

*Use f/8 at 1/125 second for backlighted close-up subjects.

†Subject shaded from the sun but lighted by a large area of sky.

To minimize the cool color balance sometimes evident in transparencies exposed in open shade, in exposures of distant scenes, in aerial scenes, and in photographs taken on overcast days, use a KODAK WRATTEN Gelatin Filter No. 1A (skylight filter). It requires no increase in exposure.

Electronic Flash

Use the guide numbers in the table below as a starting point for your equipment. Select the output closest to the number given by your flash manufacturer. Then find the guide number for feet or metres. To find the lens opening, divide the guide number by the flash-to-subject distance.

Electronic-Flash Guide Numbers										
Output of Unit (BCPS*)	350	500	700	1000	1400	2000	2800	4000	5600	8000
Guide Number for Distances in Feet	40	50	60	70	85	100	120	140	170	200
Guide Number for Distances in Metres	12	15	18	21	26	30	36	42	50	60

*BCPS stands for beam candlepower seconds.

Multiple Exposures with Electronic Flash: To compensate for the effects of multiple consecutive exposures, use the following filter and exposure adjustments as starting points.

Number of Flashes	KODAK Color Compensating Filter	Exposure Increase
1	none	none
2	none	none
4	none	1/3 stop
8	05M	1/2 stop
16	05M	2/3 stop

Fluorescent and High-Intensity Discharge Lamps

Many variables influence the color and exposure of photographs made under light sources other than daylight or flash. These variables include the spectral sensitivity of the films relative to the energy distribution of the lamps; the lamp voltage, age, operating temperature, and diffuser (if any); the mixing of fluorescent light with tungsten, daylight, or flash; and wall, floor, and ceiling colors.

Use the exposure and filter recommendations in the tables as starting points. These exposures are based on published spectral-sensitivity curves of the films and spectral-energy distributions of the lamps; they do not account for other variables.

Use exposure times of 1/60 second or longer with fluorescent and high-intensity discharge lamps to avoid the brightness and color variations that occur during a single alternating-current cycle.

Make additional test exposures by increasing and decreasing by at least a CC10 filter from those suggested in the following tables.

Type of Fluorescent Lamp	KODAK Color Compensating Filter	Exposure Increase
Daylight White	50M + 50Y	1 1/3 stops
Warm White	40M	2/3 stop
Warm White Deluxe	20C + 40M	1 stop
Cool White	60C + 30M	2 stops
Cool White Deluxe	40M + 10Y	1 stop
	20C + 10M	2/3 stop

Note: When you don't know the type of fluorescent lamp, try a 30M filter and increase exposure by 2/3 stop; color rendition will be less than optimum.

Type of High-Intensity Discharge Lamp	KODAK Color Compensating Filter	Exposure Increase
General Electric Lucalox*	80B + 20C	2 1/3 stops
General Electric Multi-Vapor Deluxe White	40M + 20Y	1 stop
Mercury	60M + 30Y	1 1/3 stops
Clear Mercury	50R + 20M + 20Y	1 2/3 stops

*This is a high-pressure sodium-vapor lamp. The information in the table may not apply to other manufacturers' high-pressure sodium-vapor lamps because of differences in the spectral characteristics.

Adjustments for Long and Short Exposures

No filter correction or exposure compensation is required for exposure times from 1/10,000 to 1/10 second. We do not recommend exposures longer than 1/10 second.

Note: This information applies only when the film is exposed to daylight illumination. The data are based on average emulsions rounded to the nearest 1/2 stop and assume normal recommended processing. Use the data only as a guide. The adjustments are subject to change due to normal manufacturing variations or film-storage conditions after the film leaves the factory. For critical applications, make tests under your conditions.

IMAGE-STRUCTURE CHARACTERISTICS

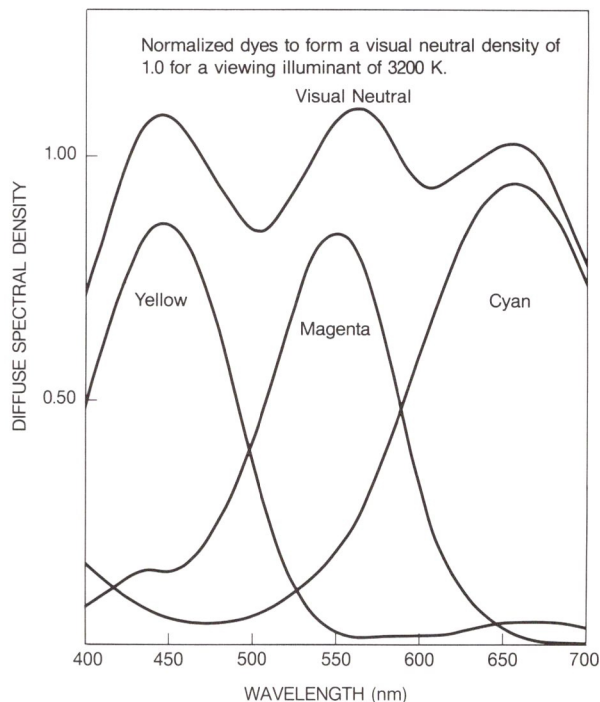
Diffuse rms Granularity*: 11

Resolving Power†	TOC TOC	1.6:1 1000:1	50 lines/mm 100 lines/mm
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*Read at a gross diffuse visual density of 1.0, using a 48-micrometre aperture, 12X magnification.

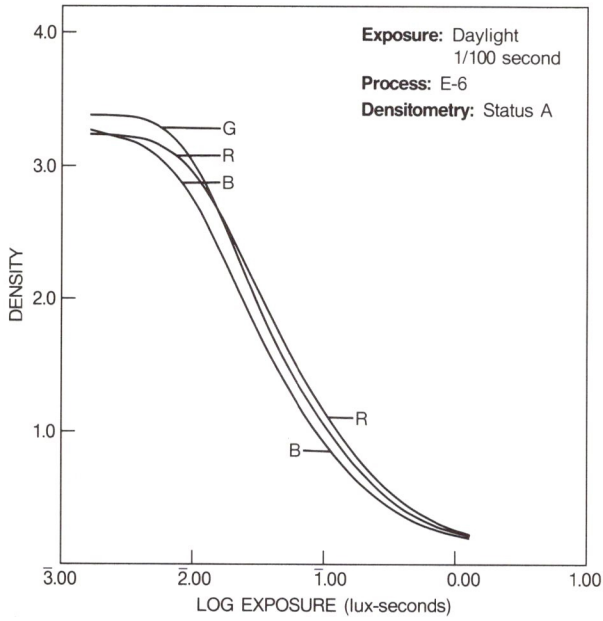
†Determined according to a method similar to the one described in ISO 6328-1982, *Photography—Photographic Materials—Determination of ISO Resolving Power*.

Spectral-Dye-Density Curves

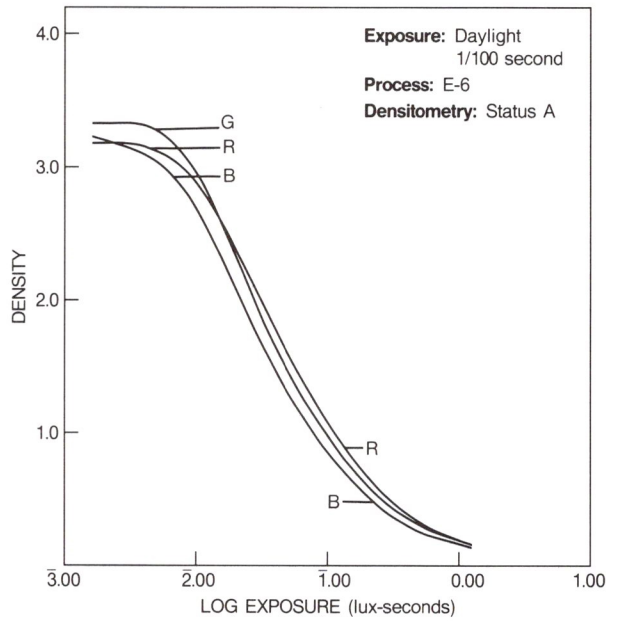


Characteristic Curves

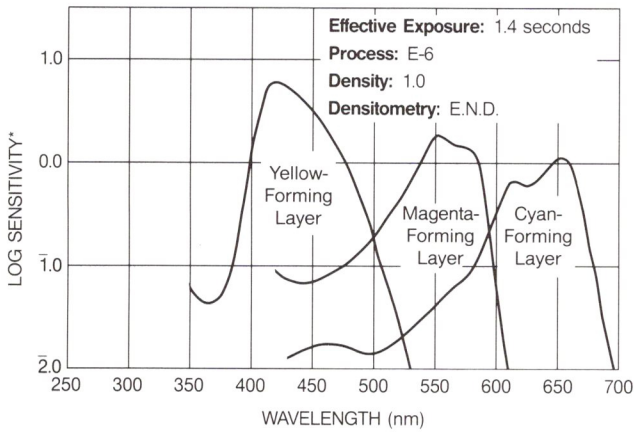
KODAK EKTACHROME 100 Professional Film / Daylight / 6012



KODAK EKTACHROME 100 Professional Film / Daylight / 6122

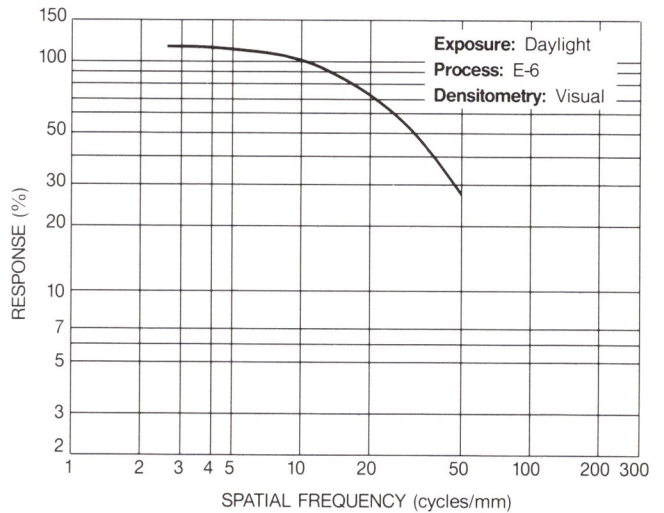


Spectral-Sensitivity Curves



*Sensitivity = reciprocal of exposure (ergs/cm²) required to produce specified density

Modulation-Transfer Curve



NOTICE: The sensitometric curves and data in this publication represent product tested under the conditions of exposure and processing specified. They are representative of production coatings, and therefore do not apply directly to a particular box or roll of photographic material. They do not represent standards or specifications that must be met by Eastman Kodak Company. The company reserves the right to change and improve product characteristics at any time.

PROCESSING

Process KODAK EKTACHROME 100 Professional Film in Process E-6 chemicals.

PRINTING TRANSPARENCIES

You can make duplicate color transparencies by direct printing on KODAK EKTACHROME Duplicating Films or KODAK EKTACHROME Overhead Material (for overhead transparencies), or by making internegatives on KODAK VERICOLOR Internegative Film and printing them on KODAK VERICOLOR Print Film, KODAK VERICOLOR Slide Film, or KODAK DURATRANS® Display Material.

Make color prints by printing internegatives onto KODAK EKTACOLOR Papers or KODAK DURAFLEX® Print Material, or by printing transparencies onto KODAK EKTACHROME Papers. You can also print transparencies by the dye-transfer process.

MORE INFORMATION

Kodak has many publications to assist you with information about Kodak products, equipment, and methods. The following publications are available from dealers who sell Kodak products, or you can order them directly from Kodak through the order form in KODAK Publication No. L-1, *KODAK Index to Photographic Information*. To obtain a copy of L-1, send your request with \$1 to Eastman Kodak Company, Department 412-L, Rochester, New York 14650.

- B-3 *KODAK Filters for Scientific and Technical Uses*
- AC-10 *Photographing Television and Computer Screen Images*
- E-16 *Making Professional Prints on KODAK EKTACHROME Papers and Overhead Material*
- E-30 *Storage and Care of KODAK Films and Papers—Before and After Processing*
- E-35 *KODAK EKTACHROME P800/1600 Professional Film*
- E-37 *KODAK EKTACHROME Professional Films (Process E-6)*
- E-77 *KODAK Color Films and Papers for Professionals*
- E-101 *KODAK EKTACHROME Copy Papers and Overhead Material*
- E-102 *KODAK EKTACHROME 22 Paper*
- E-113 *KODAK EKTACHROME 100 PLUS Film*
- KW-17 *Existing-Light Photography*
- R-28 *KODAK Professional Photoguide*

KODAK EKTACHROME 100 Professional Film

The Kodak materials described in this publication for use with KODAK EKTACHROME 100 Professional Film are available from dealers who supply Kodak products. Other materials may be used, but similar results may not be obtained.

Professional Photography Division

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