

KODAK EKTACHROME 100 PLUS Professional Film



DESCRIPTION

This versatile, 100-speed, color reversal film features high color saturation and dependable neutrals combined with pleasing flesh tones. It is an excellent choice for daylight exposures under controlled conditions or electronic flash in a wide range of commercial applications including fashion, advertising, and industrial work. You can also expose it with photolamps (3400 K) or tungsten (3200 K) illumination with conversion filters.

EKTACHROME 100 PLUS Professional Film has an intended exposure range of 1/10,000 to 1/10 second with no adjustments needed.

Use this film to produce color transparencies for viewing with 5000 K illumination. You can also use the transparencies for printing by photomechanical methods and by photographic methods of direct duplication and direct reversal printing. In addition, you can scan transparencies for digital printing and for graphic arts and photo CD applications.

FEATURES	BENEFITS
<ul style="list-style-type: none"> • Increased color saturation • Excellent flesh-to neutral 	<ul style="list-style-type: none"> • Produces vibrant colors • Successfully records neutrals while maintaining pleasing flesh tones
<ul style="list-style-type: none"> • Lower highlight contrast 	<ul style="list-style-type: none"> • Offers reasonable control over contrast with lighting variations
<ul style="list-style-type: none"> • Processed in Process E-6 Chemicals 	<ul style="list-style-type: none"> • Can be processed with other films for Process E-6 with no changes to the process or processing equipment

SIZES AVAILABLE

Rolls	Code/Spec No.	Base	CAT No.
135-36	EPP	5-mil acetate	898 6010
35 mm x 100 ft	EPP/SP 404*	5-mil acetate	159 6709
120	EPP	3.6-mil acetate	891 9433
120 (5 roll pro-pack)	EPP	3.6-mil acetate	192 5874
220 (5 roll pro-pack)	EPP	3.6-mil acetate	112 1003

* Perforated on both edges.

Note: Use the catalog numbers in the table above only for orders placed in the United States and Canada.

Sheets	Size (inches)	Code	Base	CAT No.
10	4 x 5	EPP	8.2-mil acetate	169 6806
50	4 x 5	EPP	8.2-mil acetate	890 4039
10	5 x 7	EPP	8.2-mil acetate	815 0625
10	8 x 10	EPP	8.2-mil acetate	830 4297
50	8 x 10	EPP	8.2-mil acetate	887 9058
KODAK READYLOAD Packet				
20	4 x 5	EPP	8.2-mil acetate	813 6509

Note: Use the catalog number for the 50-sheet sizes and READYLOAD Packets only for orders placed in the United States and Canada.

DARKROOM RECOMMENDATIONS

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

STORAGE AND HANDLING

Load and unload 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. Process film as soon as possible after exposure. Protect transparencies from strong light, and store them in a cool, dry place. For more information, see KODAK Publication No. E-30, *Storage and Care of KODAK Photographic Materials-Before and After Processing*.

EXPOSURE

Exposure Index Numbers

Use the exposure index numbers below with cameras or light meters marked for ISO or ASA speeds or exposure indexes. Do not change the film-speed setting when metering through a filter. Metering through filters may affect meter accuracy; see your meter or camera manual for specific information. For critical work, make a series of test exposures.

Light Source	KODAK WRATTEN Gelatin Filter	Exposure Index
Daylight or Electronic Flash	None	100
Photolamp (3400 K)	No. 80B	32
Tungsten (3200 K)	No. 80A	25

Daylight

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

Lighting Conditions	Shutter Speed (second)	Lens Opening
Bright/Hazy Sun on Sand or Snow	1/125	f/22
Bright/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
Heavy Overcast or Open Shade†	1/125	f/5.6

* Use f/8 for backlit close-up subjects.

† Subjects shaded from sun but lit by a large area of clear sky.

Electronic Flash

Use the appropriate guide number in the following table as a starting point for your equipment. First select the unit output closest to the number given by your flash manufacturer. Then find the guide number for feet or metres. To determine the lens opening, divide the guide number by the flash-to-subject distance. If transparencies are consistently too thin (overexposed), use a higher guide number; if they are too dense (underexposed), use a lower number.

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

* BCPS= beam candlepower seconds.

Multiple Exposures with Electronic Flash

No filter corrections or exposure adjustments are required for 1 or 2 flashes (multipops). For additional multipops, see the adjustments in the following table.

No. of Flashes	KODAK Color Compensating Filter	Exposure Increase
4	None	1/3 stop
8	CC05M	1/2 stop
16	CC05M	2/3 stop

Fluorescent and High-Intensity Discharge Lamps

Use the color-compensating filters and exposure adjustments below as starting points to expose these films under fluorescent or high-intensity discharge lamps. For critical applications, make a series of test exposures under your actual conditions.

To avoid the brightness and color variations that occur during a single alternating-current cycle, use exposure times of 1/60 second or longer with fluorescent lamps; with high-intensity discharge lamps, use 1/125 second or longer

Type of Fluorescent Lamp	KODAK Color Compensating Filter	Exposure Adjustment
Daylight	50R	+1 stop
White	40M	+ $\frac{2}{3}$ stop
Warm White	20C + 40M	+1 stop
Warm White Deluxe	30B + 30C	+1 $\frac{1}{3}$ stops
Cool White	40M + 10Y	+1 stop
Cool White Deluxe	20C + 10M	+ $\frac{2}{3}$ stop

Note: When you do not know the type of fluorescent lamps, try a 30M filter and increase exposure by $\frac{2}{3}$ stop; color rendition will probably be less.

High-Intensity Discharge Lamp	KODAK Color Compensating Filters	Exposure Adjustment
General Electric Lucalox*	80B + 20C	+2 $\frac{1}{3}$ stops
General Electric Multi-Vapor	20R + 20M	+ $\frac{2}{3}$ stop
Deluxe White Mercury	30R + 30M	+1 $\frac{1}{3}$ stops
Clear Mercury	70R	+1 $\frac{1}{3}$ stops

* A high-pressure sodium-vapor lamp. The information here may not apply to other manufacturers' sodium-vapor lamps because of differences in spectral characteristics.

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

Some primary color filters were used in the previous tables to reduce the number of filters and keep the exposure adjustment to a minimum. Red filters were substituted for equivalent filtration in magenta and yellow. Blue filters were substituted for equivalent filtration in cyan and magenta.

Adjustments for Long and Short Exposures

No filter correction or exposure compensation is required for exposures from 1/10,000 to 1/10 second. At a 1-second exposure, use a CC025R filter and increase exposure by $\frac{1}{3}$ stop. At 10 seconds, use a CC025R filter and increase exposure by 1 stop. At 100 seconds, we suggest that you use CC10Y + CC025R filtration and increase exposure by 2 stops.

Note: This information applies only when exposing the films to daylight. The data are based on average emulsions rounded to the nearest $\frac{1}{3}$ stop and assume normal, recommended processing. Use the data only as a guide. For critical applications, make tests under your conditions.

PROCESSING

Chemicals

Process EKTACHROME 100 PLUS Professional Film in KODAK Chemicals, Process E-6.

RETOUCHING TRANSPARENCIES

Use KODAK E-6 Transparency Retouching Dyes. You can chemically retouch sheet and 120/220 sizes of this film on both the base and the emulsion side. Retouch only the emulsion side on the 135 size. For information on retouching equipment, supplies, and techniques, see KODAK Publication No. E-68, *Retouching Transparencies on KODAK EKTACHROME Film*.

PRINTING TRANSPARENCIES

You can reproduce images made on EKTACHROME 100 PLUS Professional Film by using a variety of Kodak materials.

Duplicate Color Transparencies

For direct printing, use—

KODAK EKTACHROME Duplicating Films

KODAK EKTACHROME RADIANCE Overhead Material

Or make internegatives on KODAK Commercial Internegative Film, and print them on—

KODAK VERICOLOR Print Film

KODAK VERICOLOR Slide Film

KODAK DURATRANS®, RA Display Material

KODAK DURACLEAR™ RA Display Material

Color Prints

For direct printing, use—

KODAK EKTACHROME RADIANCE III Paper

KODAK EKTACHROME RADIANCE SELECT III Material

Or make internegatives on KODAK Commercial Internegative Film, and print them on—

KODAK PROFESSIONAL PORTRA III Papers

KODAK PROFESSIONAL SUPRA III Paper

KODAK PROFESSIONAL ULTRA III Paper

KODAK DURAFLEX®, RA Print Material

SCANNING TRANSPARENCIES

For Graphic Arts Applications

The KODAK EKTACHROME Film family is characterized by sets of image dyes which perform very similarly when scanned. The scanner operator can set up one basic tone scale and color correction channel for EKTACHROME Films, and then optimize the tone scale and gray balance for the requirements of individual images.

Use the KODAK Color Input Target / Q-60E1 (4- x 5-in. transparency) or Q-60E3A (35 mm slide) to establish the setup for KODAK EKTACHROME Films on all scanners. These targets meet ANSI standards and represent the dye sets of all EKTACHROME Films.

For Photo CD Applications

Use the Universal E-6 Film Term to scan all KODAK EKTACHROME Films for KODAK PCD Imaging Workstation applications.

For output to a Photo CD player: Using the Universal E-6 Film Term should result in an image that closely matches your original in density, tone scale, and overall color balance when viewed on a player.

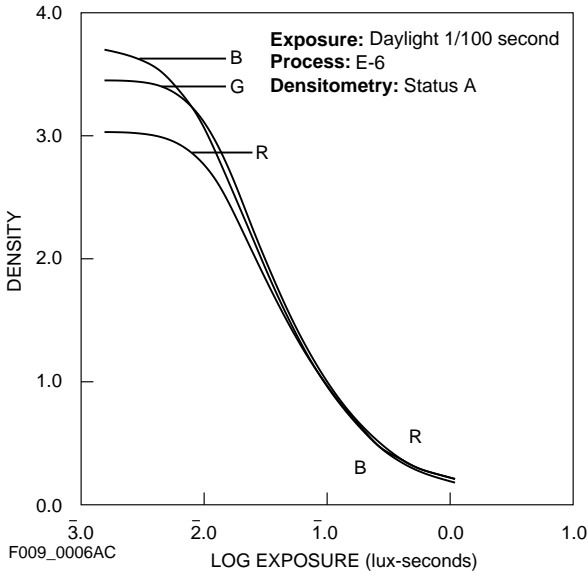
For output devices other than Photo CD players: The YCC data that results when using the Universal E-6 Film Term is capable of producing a high-quality duplicate of your original in terms of density, tone scale, and color reproduction. Final quality of your reproduced image depends on the capabilities of your output device, the viewing environment, and the rendering path used.

IMAGE STRUCTURE

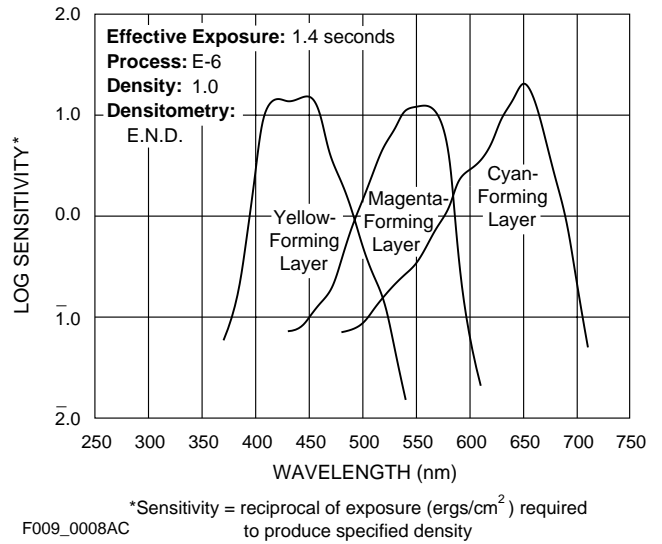
Diffuse rms Granularity*

*Read at a gross diffuse visual density of 1.0, using a 48 micrometre aperture, 12X magnification.

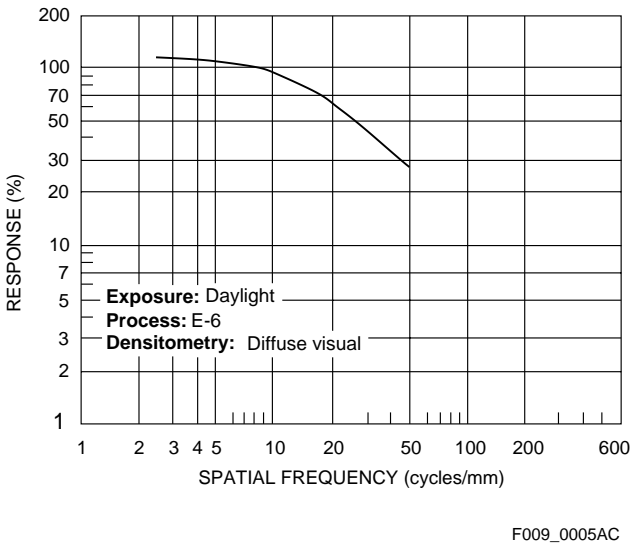
Characteristic Curves



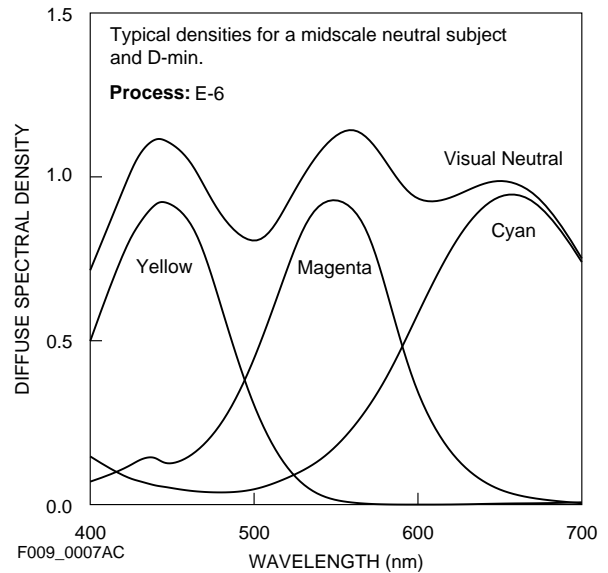
Spectral-Sensitivity Curves



Modulation-Transfer Curves



Spectral-Dye Density Curves



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.

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MORE INFORMATION

Kodak has many publications to assist you with information on Kodak products, equipment, and materials.

Additional information is available on the Kodak website and through the U.S.A. /Canada faxback system.

The following publications are available from Kodak Customer Service, from dealers who sell Kodak products, or you can contact Kodak in your country for more information.

- E-30 *Storage and Care of KODAK Photographic Materials—Before and After Processing*
- E-31 *Reciprocity and Special Filter Data for KODAK Films*
- E-38 *KODAK EKTACHROME Duplicating Films*
- E-68 *Retouching Transparencies on KODAK EKTACHROME Film*
- E-164 *KODAK PROFESSIONAL EKTACHROME Films E100S and E100SW*

For the latest version of technical support publications for KODAK PROFESSIONAL Products, visit Kodak on-line at:
<http://www.kodak.com/go/professional>

Many technical support publications for KODAK PROFESSIONAL Products can be sent to your fax machine from the Kodak Information Center. Call:
U.S. 1-800-242-2424, Ext. 33 / Canada 1-800-295-5531
—Available 24 hours a day, 7 days a week—

If you have questions about KODAK PROFESSIONAL Products, call Kodak.

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In Canada:

1-800-465-6325, Monday–Friday
8 a.m.–5 p.m. (Eastern time)



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