KODAK EKTACHROME 100 Professional Film

KODAK EKTACHROME 100 Professional Film is a daylight-balanced color reversal film designed to meet the special demands of commercial photographers, especially those whose primary business is catalog photography. The film features very fine grain, very high sharpness, and exceptional color accuracy.

EKTACHROME 100 Professional Film is an excellent choice for photographic applications where natural color rendition is required; i.e., commercial images of furniture, fabric, and clothing—particularly those with reflectance characteristics that often adversely affect color reproduction.

The film is intended for exposure with daylight or electronic flash.You can also expose it with photolamps (3400 K) or tungsten (3200 K) illumination with conversion filters.

The exposure range is 1/10,000 to 1/10 second without the need for filter correction or exposure compensation.

You can use this film to produce color transparencies for viewing with 5000 K illumination (ANSI Standard PH2.30-1989, *Viewing Conditions—Photographic Prints, Transparencies, and Photomechanical Reproductions).*

You can also print the transparencies by photomechanical methods or by the photographic methods of direct duplication and direct reversal printing. They can be scanned for graphic-arts reproduction as well.

FEATURES	BENEFITS
• Spectral sensitivity designed to optimize color reproduction	• The most accurate film for color reproduction, most obvious with teal, green, and blue hues
• Exceptional shadow detail and color saturation	• Rich colors without compromising color accuracy
• Excellent flesh-to-neutral color balance	• Accurately records neutral colors while maintaining pleasing skin tones
• Very high sharpness	• Able to provide images with excellent detail
• Processed in Process E-6 chemicals	• Can be processed with other films for Process E-6 with no changes to the process or processing equipment

SIZES AVAILABLE

Sizes and catalog numbers may differ from country to country. See your dealer who supplies KODAK PROFESSIONAL Products.

Rolls	Code	Base	CAT No.
135-36	EPN	5-mil acetate	142 9539
120	EPN	3.6-mil acetate	863 4438
120 (5-roll pro-pack)	EPN	3.6-mil acetate	138 1243
220 (5-roll pro-pack)	EPN	3.6-mil acetate	859 7429
35 mm x 100 ft	EPN	5-mil acetate	196 7652
35 mm x 400 ft	EPN	5-mil acetate	157 5018

Sheets	Size	Code	Base	CAT No.
10 50	4 x 5 in.	EPN	8.2-mil acetate	140 4474 148 9822
10 50	5 x 7 in.	EPN	8.2-mil acetate	187 5590 808 8932
10 50	8 x 10 in.	EPN	8.2-mil acetate	176 7276 178 7407
10	11 x 14 in.	EPN	8.2-mil acetate	120 0112

STORAGE AND HANDLING

Load and unload film in subdued light.

Store unexposed film in a refrigerator at 13°C (55°F) 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 on storing transparencies, see KODAK Publication No. E-30, *Storage and Care of KODAK Photographic Materials—Before and After Processing.*

DARKROOM RECOMMENDATIONS

Do not use a safelight; handle unprocessed film in total darkness. Be sure that your darkroom is lighttight.

EXPOSURE

Use the speed numbers below with cameras or 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 light 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 table below for average front-lit subjects from 2 hours after sunrise to 2 hours before sunset.

Lighting Conditions	Shutter Speed (second)	Lens Opening
Bright or hazy sun on light sand or snow	1/125	*f*/22
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
Heavy overcast or open shade†	1/125	*f*/5.6

* Use *f*/8 for backlit close-up subjects.
† Subjects shaded from the 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

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 Adjustment
1	None	None
2	None	None
4	025M	+⅓ stop
8	05M	+½ stop
16	05M	+⅔ stop

Fluorescent and High-Intensity Discharge Lamps

Use the color-compensating filters and exposure adjustments in the tables below as starting points to expose this film 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 exposure times of 1/125 second or longer.

Type of Fluorescent Lamp	KODAK Color Compensating Filters	Exposure Adjustment
Daylight	50R	+1⅓ stops
White	40M	+⅔ stop
Warm White	20C + 40M	+1 stop
Warm White Deluxe	30B + 30C	+2 stops
Cool White	40M + 10Y	+ 1 stop
Cool White Deluxe	20C + 10M	+ ⅔ stop

Note: When you don't know the type of fluorescent lamps, try a CC30M filter and increase exposure by ⅔ stops; color rendition will probably be less than optimum.

High-Intensity Discharge Lamp	KODAK Color Compensating Filters	Exposure Adjustment
General Electric Lucalox*	80B + 20C	+2 ⅓ stops
General Electric Multi-Vapor	20R + 20M	+⅔ stop
Deluxe White Mercury	30R + 30M	+1⅓ stops
Clear Mercury	70R	+1⅔ 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 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 1 second, use a CC05M filter and increase exposure by 1⁄3 stop. We do not recommend exposures longer than 1 second. At longer exposures, significant color shifts in the cyan-green direction or contrast mismatches may occur.

Note: This information applies only when the film is exposed to daylight. The data are based on average emulsions rounded to the nearest ⅓ stop and assume normal, recommended processing. Use the data only as a guide. For critical applications, make test under your conditions.

PROCESSING

Process KODAK EKTACHROME 100 Professional Film in KODAK Chemicals, Process E-6. For best quality, use the normal speed rating of EI 100 and normal processing.

For consistent processing of this and other KODAK EKTACHROME Films, use a lab that is a member of the KODAK Q-LAB Process Monitoring Service.

RETOUCHING

Use KODAK E-6 Transparency Retouching Dyes. You can chemically retouch sheet, 120 and 220 formats of EKTACHROME 100 Professional Film on both the base and the emulsion side. Retouch only the emulsion side of the 135 size.

For information on retouching equipment, supplies, and techniques, see KODAK Publication No. E-68, *Retouching Color Transparencies on KODAK EKTACHROME Film.*

PRINTING TRANSPARENCIES

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

Duplicate Color Transparencies

For direct printing, use—

KODAK EKTACHROME Duplicating Films

KODAK EKTACHROME RADIANCE III Overhead Material (for overhead transparencies)

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 Papers

KODAK EKTACHROME RADIANCE III SELECT Material

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

KODAK PROFESSIONAL PORTRA III Papers

KODAK PROFESSIONAL SUPRA III Papers

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-601E1 or Q-60E3 to establish the setup for KODAK EKTACHROME Films on all scanners. This target meets ANSI standards and represents the dye sets of all EKTACHROME Films.

For Photo CD Applications

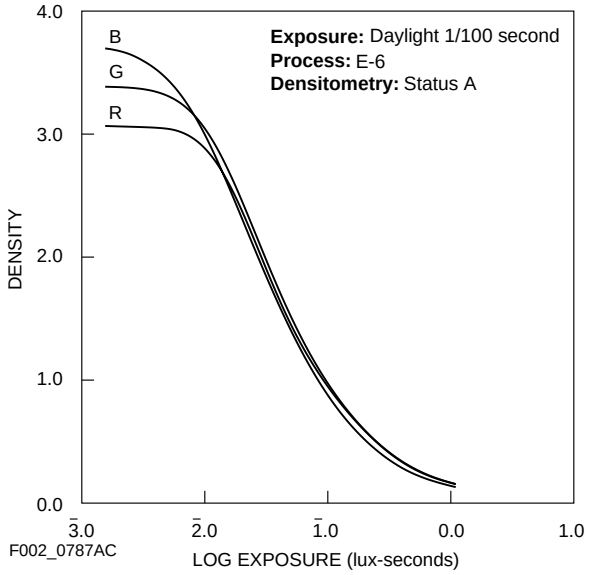
For output to a Photo CD player: Using the Universal E-6 Film Term should result in an image that closely matches your original in density, tone scale, and overall color balance when viewed on a player. Use the Universal E-6 Film Term to scan all KODAK EKTACHROME Films for KODAK PCD Imaging Workstation applications.

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

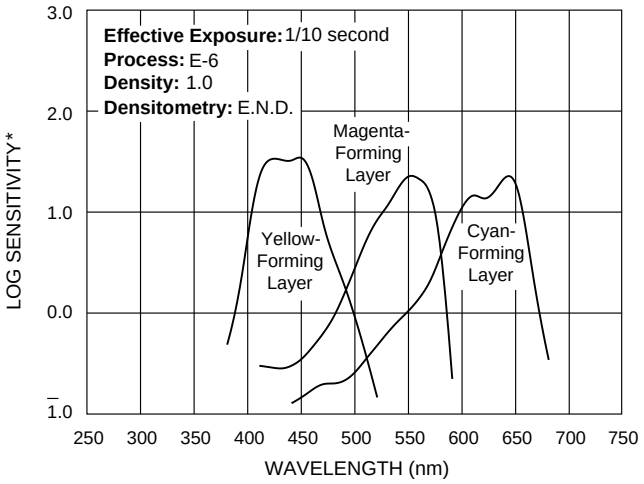
Diffuse rms Granularity* 11

Characteristic Curves



F002_0787AC

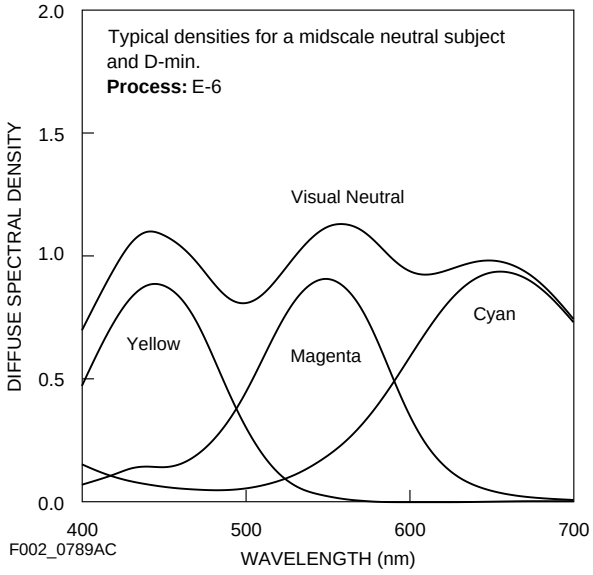
Spectral-Sensitivity Curves



*Sensitivity = reciprocal of exposure (erg/cm^2) required to produce specified density

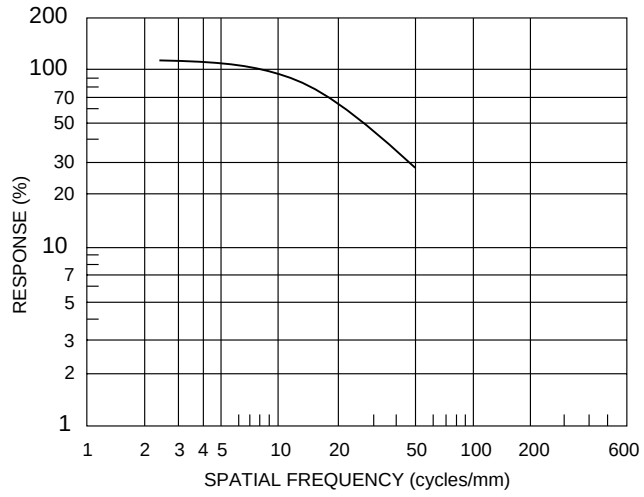
F002_0788AC

Spectral-Dye-Density Curves



F002_0789AC

Modulation-Transfer Curve



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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.

* Read on gross diffuse visual density of 1.0, using a 48-micrometre aperture, 12X maginification.

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-10	*KODAK EKTACHROME RADIANCE III Paper*
E-13	*KODAK EKTACHROME RADIANCE III Select Material*
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 (Process E-6)*
E-68	*Retouching Transparencies of KODAK EKTACHROME Film*
E-140	*KODAK EKTACOLOR PORTRA III Paper*
E-141	*KODAK EKTACOLOR SUPRA II Papers*
E-142	*KODAK EKTACOLOR ULTRA II Paper*
E-143	*KODAK Display and Print Material for Process RA-4*
E-177	*KODAK EKTACHROME RADIANCE III Copy Paper*
E-178	*KODAK EKTACHROME RADIANCE III Overhead Material*
E-179	*KODAK EKTACHROME RADIANCE III HC Copy Paper*
G-22	*KODAK EKTAMAX RA Professional Paper*
H3-995	*KODAK Q-60 Color Input Targets**
Z-119	*Using KODAK Chemicals, Process E-6*

* Brochure/order form available from the address above.

Kodak Information Center's Faxback System

—Available 24 hours a day, 7 days a week—

Many technical support publications for Kodak products can be sent to your **fax** machine from the Kodak Information Center. Call:

U.S.A. 1-800-242-2424, Ext. 33
Canada 1-800-295-5531

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

In the U.S.A.:
1-800-242-2424, Ext 19, Monday–Friday
9 a.m.–7 p.m. (Eastern time)

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

Or contact Kodak on-line at:
http://www.kodak.com/go/professional

Note: The Kodak materials described in this publication for use with KODAK EKTACHROME 100 Professional Film are available from dealers who supply KODAK PROFESSIONAL Products. You can use other materials, but you may not obtain similar results.

If you have questions about KODAK PROFESSIONAL Products, contact Kodak in your country.

Kodak Professional

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