

KODAK EKTACHROME 320T Professional Film



This fast color transparency film is specifically balanced for exposure with tungsten illumination. It is ideal for motion picture and television stills, fashion, glamour, editorial, and theatre/concert under existing tungsten light. Its high speed makes it an excellent choice for indoor action photography, or for situations that require small apertures for good depth of field.

This film features bold, saturated colors and uses KODAK T-GRAIN Emulsions for fine grain and high sharpness. It has an intended exposure range of 1/10,000 to 1/10 second with no filter or exposure adjustment. You can use exposure times up to 10 seconds with an exposure increase and a color compensating filter.

Use this film to produce color transparencies for projection or viewing with 5000 K illumination.

FEATURES	BENEFITS
• ISO 320 speed	• High speed for existing tungsten light without filtration
• Bright, bold colors	• Good color reproduction even in dimly lighted conditions

SIZES AVAILABLE

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

Rolls	Film Code	Acetate Base	CAT No.
135-36	EPJ	5.0-mil (0.13 mm)	130 6018

STORAGE AND HANDLING

Load and unload film in subdued light.

Store unexposed films at 13°C (55°F) or lower in the original sealed package. To avoid moisture condensation on the 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 Photographic Materials—Before and After Processing*.

DARKROOM RECOMMENDATIONS

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

EXPOSURE

Speed and Filter

Use the Exposure Index (EI) numbers below with meters and cameras marked for ISO, DIN, or ASA speed, 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
Tungsten (3200 K)	None	320
Photolamp (3400 K)	81A	250
Daylight or Electronic Flash	85B	200

Tungsten Light

For best color rendition, use tungsten photolamps (3200 K) at their rated voltage. If voltage varies significantly, the color of the lamp will change. Other light sources may not give equally good results, even with filters. Unless you want a special effect, do not mix light sources of different color qualities, particularly tungsten light and daylight.

Fluorescent and High-Intensity Discharge Lamps

Use the color-compensating filters and exposure adjustments 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. Vary the recommended filtration by at least +CC10, and increase or decrease exposure accordingly.

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.

Fluorescent Lamps	KODAK Color Compensating Filters	Exposure Adjustment
Daylight	No. 85B + 40M + 30Y	+1 2/3 stops
White	50R + 10M	+1 1/3 stops
Warm White	50M + 40Y	+1 stop
Warm White Deluxe	10R	+1/3 stop
Cool White	60R	+1 1/3 stops
Cool White Deluxe	20M + 40Y	+2/3 stop
Unknown Fluorescent*	50R	+ 1 stop

*When the type of fluorescent lamp is unknown, try this filter and exposure adjustment; color rendition may be less than optimum.

High-Intensity Discharge Lamps	KODAK Color Compensating Filters	Exposure Adjustment
General Electric Lucalox*	50M + 20C	+1 stop
General Electric Multi-Vapor	60R + 20Y	+1 2/3 stops
Deluxe White Mercury	70R + 10Y	+1 2/3 stops
Clear Mercury	90R + 40Y	+2 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 due to 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.

Electronic Flash

Use a KODAK WRATTEN Gelatin Filter No. 85B, or equivalent. Calculate the guide number based on the film speed for daylight, ISO 200.

Adjustments for Long and Short Exposures

No filter correction or exposure compensation is required for exposure times from 1/10,000 second to 1/10 second. For a 1-second exposure, increase exposure by $\frac{1}{3}$ stop and add a CC05R filter. For an exposure of 10 seconds, increase exposure by $\frac{1}{2}$ stop and use a CC10R filter. Longer exposures may result in color balance or contrast mismatches, and are not recommended.

Note: This information applies only when the film is exposed to tungsten illumination. 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

Process EKTACHROME 320T Professional Film in KODAK Chemicals, Process E-6.

For consistent processing of this and all other 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. Retouch only the emulsion side of 35 mm formats. For information on retouching equipment, supplies, and techniques, see KODAK Publication E-68, *Retouching Color Transparencies on KODAK EKTACHROME Film*.

PRINTING TRANSPARENCIES

You can reproduce images made on EKTACHROME 320T Professional Film by using a variety of Kodak materials:

Duplicate Color Transparencies

For direct printing, use—

KODAK PROFESSIONAL EKTACHROME
Duplicating Film EDUPE

Or make internegatives on KODAK Commercial

Internegative Film, and print them on—

KODAK PROFESSIONAL ENDURA Transparency
Optical Display Material

KODAK PROFESSIONAL ENDURA Clear Optical
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 ENDURA Paper

KODAK PROFESSIONAL SUPRA ENDURA Paper

KODAK PROFESSIONAL ULTRA ENDURA Paper

KODAK PROFESSIONAL DURAFLEX® Plus Digital
Display Material

KODAK PROFESSIONAL ENDURA Metallic Paper

Digital Files

You can scan your image to a file and print digitally to—

KODAK PROFESSIONAL ENDURA Transparency
Digital Display Material

KODAK PROFESSIONAL ENDURA Clear Digital
Display Material

KODAK PROFESSIONAL DURAFLEX® Plus Digital
Display Material

KODAK PROFESSIONAL ENDURA Metallic Paper

KODAK PROFESSIONAL Day/Night Digital Display
Material

SCANNING TRANSPARENCIES

For Graphic Arts Applications

The KODAK EKTACHROME Film family is characterized by sets of image dyes which perform similarly when scanned. The scanner operator can set up one basic tone scale and color-correction channel for all 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-inch transparencies) or Q-60E3A (35 mm slide) 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

Use the Universal E-6 Film Term to scan all KODAK EKTACHROME films for Photo CD 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 transparency in density, tone scale, and overall color balance when viewed on a player.

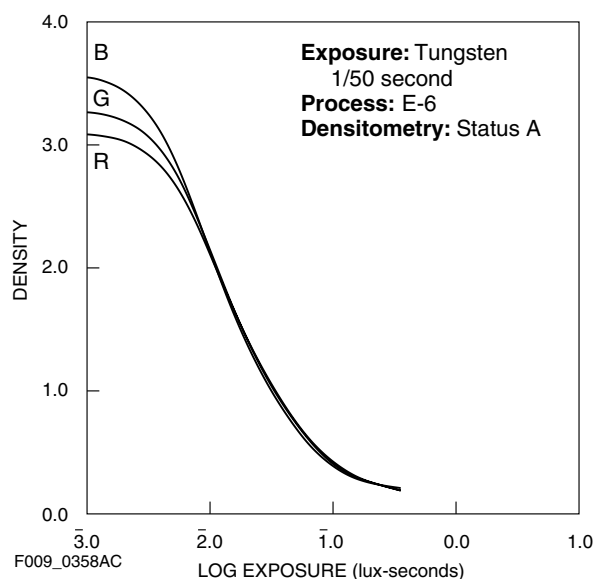
For Output to Devices Other than Photo CD Players: The YCC data that results when using the Universal E-6 Film Term is capable of producing a high-quality duplicate of your original transparency in terms of density, tone scale, and color reproduction. Final quality of your reproduced image depends on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

CURVES

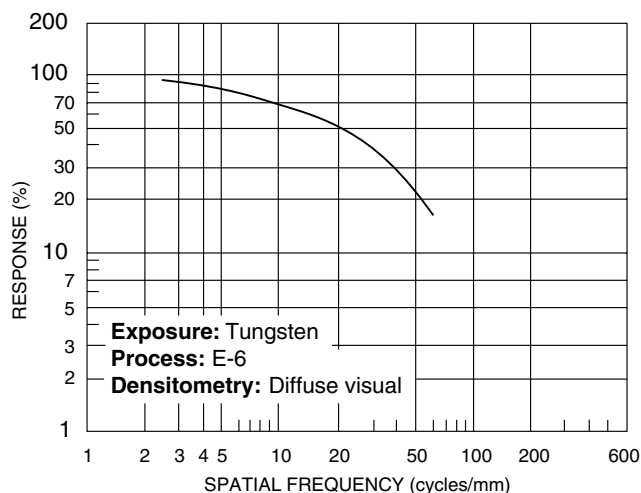
Diffuse rms Granularity* 19 (fine)

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

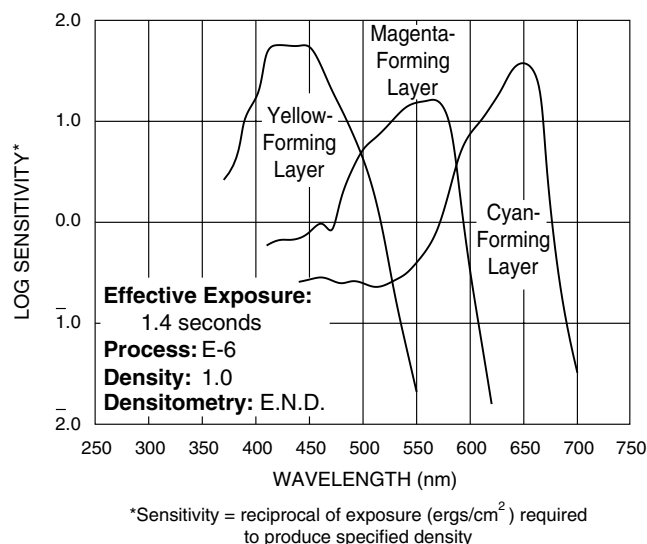
Characteristic Curves



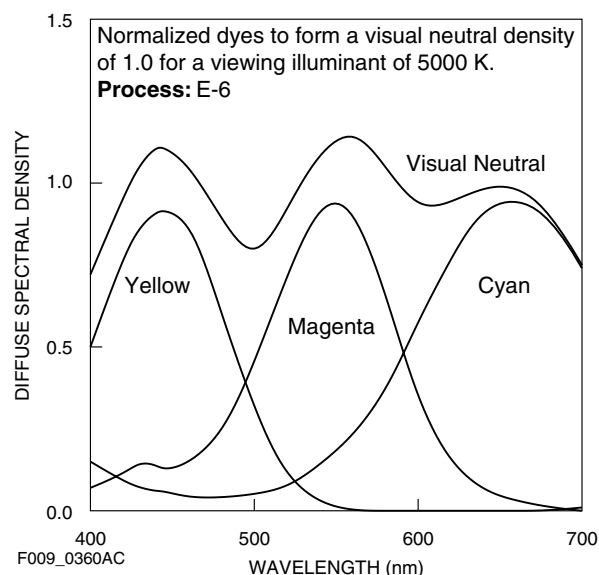
Modulation-Transfer Curve



Spectral-Sensitivity Curve



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.

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-8	<i>KODAK EKTACHROME 64 Professional Film</i>
E-27	<i>KODAK EKTACHROME 100 Professional Film</i>
E-28	<i>KODAK PROFESSIONAL EKTACHROME Film E200</i>
E-30	<i>Storage and Care of KODAK Photographic Materials—Before and After Processing</i>
E-31	<i>Reciprocity and Special Filter Data for KODAK Films</i>
E-38	<i>KODAK EKTACHROME Duplicating Films</i>
E-68	<i>Retouching Transparencies on KODAK EKTACHROME Film</i>
E103RF	<i>KODAK PROFESSIONAL Color Reversal Films</i>
E-113	<i>KODAK EKTACHROME 100 Plus Professional Film</i>
E-130	<i>KODAK EKTACHROME 64T Professional Film</i>
E-144	<i>KODAK EKTACHROME 160T Professional Film</i>
E-147	<i>KODAK EKTACHROME P1600 Professional Film</i>
E-161	<i>KODAK EKTACHROME 400X Professional Film</i>
E-163	<i>KODAK PROFESSIONAL EKTACHROME Film E100VS</i>
E-4024	<i>KODAK PROFESSIONAL EKTACHROME Films E100G and E100GX</i>

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

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)

Note: The Kodak materials described in this publication for use with KODAK EKTACHROME 320T Professional Film are available from dealers who supply KODAK PROFESSIONAL Products. You can use other materials, but you may not obtain similar results.



Kodak Professional Division
EASTMAN KODAK COMPANY

Kodak Professional