KODAK PROFESSIONAL ELITE Chrome Extra Color 100 Film

KODAK PROFESSIONAL ELITE Chrome Extra Color 100 Film brings a new dimension in color reproduction to Kodak's ELITE family of slide films. Featuring the highest color saturation available in a 100-speed consumer slide film, it has the versatility at this speed to provide higher shutter speeds to stop motion or allow the use of smaller apertures for increased depth-of-field while delivering extra bright colors. Try ELITE Chrome Extra Color 100 Film for your outdoor picture-taking, especially for nature and scenic photos where you want bold, dramatic colors.

ELITE Chrome Extra Color 100 Film is designed for exposure with daylight or electronic flash. It can also be exposed with tungsten (3200 K) illumination with conversion filters.

You can use this film to produce color slides for projection, or have color prints, enlargements, duplicate slides, internegatives, and photo CDs made from your original slides. Color prints and enlargements can also be made digitally from color slides on systems such as the KODAK Digital Print Station.

Features	Benefits
Color Saturation:	
• Kodak's proprietary color amplifying technology (patent pending)	• Vibrancy and the highest color saturation available today in a 100-speed consumer film
Exposure Reliability:	
• True 100 speed	• More versatility in available light • Allows you to capture more usable images
• Superb reciprocity	• No compensation required for exposures from 1/10,000 second to 10 seconds
Image Structure Technology:	
• KODAK T-GRAIN® Emulsions in all color records	• Extremely sharp, yielding ultra fine details • Very fine grain
Process Reliability	
• Designed for Process E-6 Chemicals	• Process with other films in Process E-6 without equipment or process modifications

STORAGE AND HANDLING

Load and unload cassettes in subdued light.

Store unexposed film at 70°F (21°C) or lower in the *original sealed package*. Always store film in a cool, dry place. Process film as soon as practical after exposure.

Protect slides from strong light, and store it in a cool, dry place. For more information on storing color slides, see KODAK Publication E-30, *Storage and Care of KODAK Photographic Materials—Before and After Processing.*

SIZES AVAILABLE

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

Film Size	Code	Base
135-24	EBX	5-mil acetate
135-24 (carded)		
135-36		
135-36 (carded)		

DARKROOM RECOMMENDATIONS

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

EXPOSURE

Use the exposure index numbers below with meters and cameras marked for ISO, ASA, or DIN speeds. 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 PROFESSIONAL WRATTEN Gelatin Filter	Exposure Index Arithmetic/ Logarithmic
Daylight or Electronic Flash	None	100/21
Tungsten (3200K)	80 A	25/15

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 table below as a starting point for your equipment. 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	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

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	+1 stop
White	40M	+ ⅔ stop
Warm White	20C + 40M	+1 stop
Warm White Deluxe	30B + 30C	+1⅓ 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	+1⅓ 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 minimum. Red filters were substituted for equivalent filtration in magenta and yellow. Blue filters were substituted for equivalent filtration in cyan and magenta.

Reciprocity Adjustments for Long and Short Exposures

No filter correction or exposure compensation is required for exposures from 1/10,000 to 10 seconds.

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. 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.

PROCESSING

Process this film in KODAK Chemicals, Process E-6.

Note: KODAK PROFESSIONAL ELITE Chrome Films contain special sensitizing and filter dyes that improve color reproduction. Because these dyes are designed to rinse out of the film during processing, they will change the color of the first developer, reversal bath, the final wash, and the final rinse. This solution discoloration is only cosmetic. It will not affect the sensitometry or the quality of any Process E-6 film or control material. However, the solutions will cause splicing tape and processing equipment (roller, racks, etc.) to have a pinkish color. The pink dye residue can easily be washed off processing equipment by following normal maintenance procedures.

PRINTING TRANSPARENCIES

You can make color prints or enlargements photographically by making an internegative and printing on Kodak color negative paper.

You can also make prints and enlargements with a KODAK Picture Maker. This self-serve picture kiosk makes prints from wallet to 8 x 10-inches, and allows you to remove red-eye, add text and borders, and make calendars. See your photo dealer for availability in your area.

SCANNING TRANSPARENCIES

You can easily scan ELITE Chrome Extra Color 100 Film with a variety of linear-array-CCD, area-array-CCD, and PMT film scanners. You can scan slides on desk-top scanners as well as high-end drum scanners.

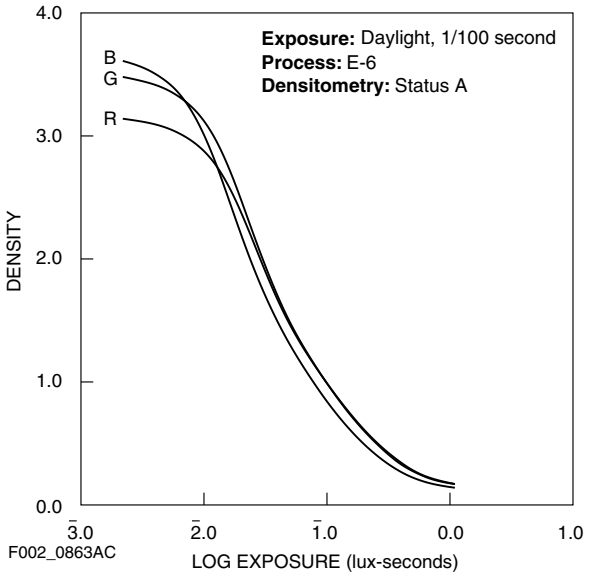
Because no standards exist to define the colored filter sets that film scanners use to capture the red, green, and blue information of the film image, each manufacturer's scanner has its own characteristic output. The output depends on the scanner's sensitivity to the dyes in the film. This sensitivity is determined by the spectral distribution of the colored filter sets and/or the spectral sensitivity of the charge-coupled-device (CCD). In addition to these spectral specifications, scanner output depends on the look-up tables or matrices that the scanner uses to output information for CRT monitors, transmission, etc. These tables or matrices are part of either "plug-in" programs used with specific software packages designed for image manipulation, updateable ROMs included with the equipment, or fixed algorithms for calibrating and balancing.

The generic "color slide film" setting available with scanner software is only a starting point. You can adjust the final color balance and the scene-dependent contrast and brightness of an image by using the scanner's controls during pre-scan, or by using an image-manipulation software program or workstation after acquisition. Some scanners allow you to use "plug-in" programs to customize scanner setups.

IMAGE STRUCTURE

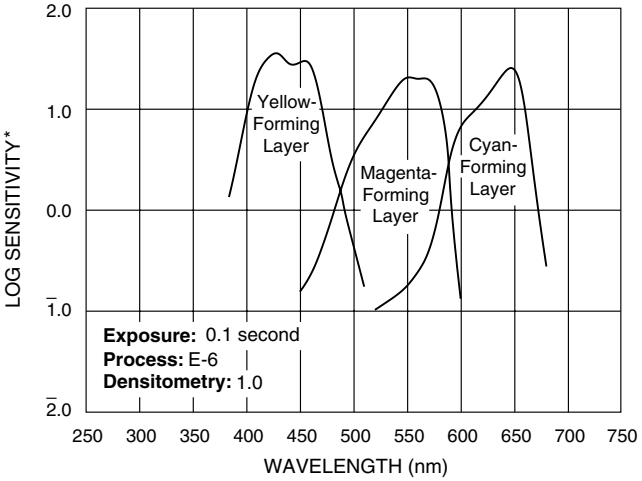
Diffuse rms Granularity* 11

Characteristic Curves



F002_0863AC

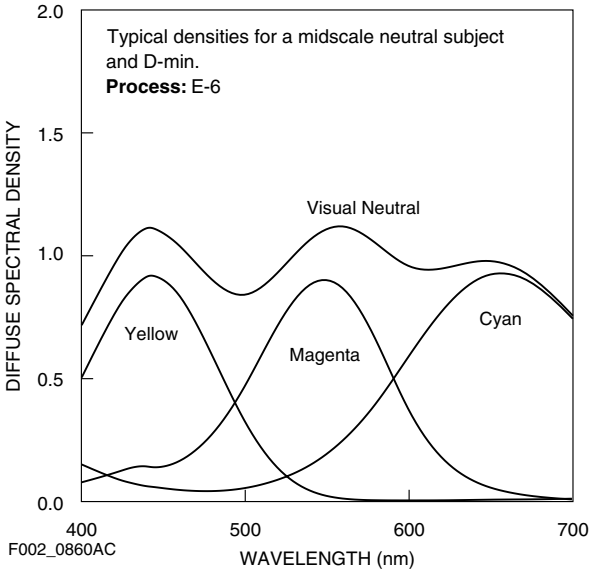
Spectral-Sensitivity Curves



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

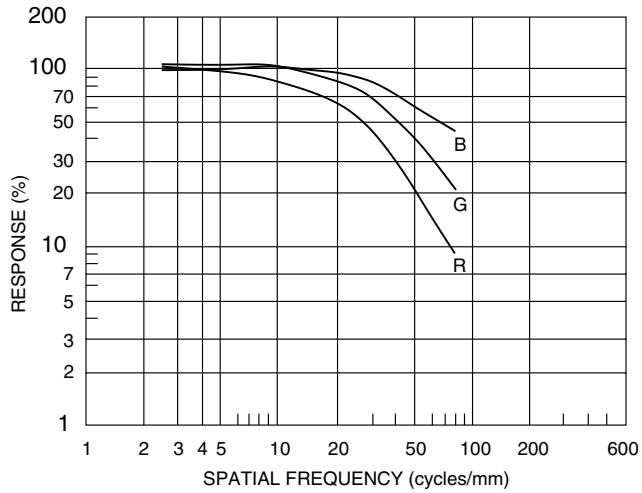
F002_0859AC

Spectral-Dye Density Curves



F002_0860AC

Modulation-Transfer Curves



F002_0861AC

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

MORE INFORMATION

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

If you have questions about KODAK Products, call Kodak.
In the U.S.A.:
1-800-242-2424, 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)

E-30	*Storage and Care of KODAK Photographic Materials—Before and After Processing*
E-7014E	*KODAK PROFESSIONAL ELITE Chrome 100 Film*
E-148E	*KODADAK PROFESSIONAL ELITE Chrome 200 Film*
E-149E	*KODAK PROFESSIONAL ELITE Chrome 400 Film*
Z-119	*Using KODAK Chemicals, Process E-6*

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

If you have questions about KODAK Products, call Kodak.
In the U.S.A.:
1-800-242-2424, 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 PROFESSIONAL ELITE Chrome Extra Color Film are available from dealers who supply KODAK Products. You can use other materials, but you may not obtain similar results.

AT-A-GLANCE FILM SELECTOR

KODAK PROFESSIONAL Film	Film Speed	Exposure	Lighting Condition	Grain	Process
For Color Slides					
ELITE Chrome 100	EI 100	Daylight or Electronic Flash	Bright or hazy sun Enlargements	Extremely fine	E-6
ELITE Chrome Extra Color	EI 100	Daylight or Electronic Flash	Outdoor or indoor with flash	Extremely fine	E-6
ELITE Chrome 200	EI 200	Daylight or Electronic Flash	Multi-purpose use	Extremely fine	E-6
ELITE Chrome 400	EI 400	Daylight or Electronic Flash	Low light Fast action	Fine	E-6

Digital and Film Imaging Systems
EASTMAN KODAK COMPANY • ROCHESTER, NY 14650

KODAK PROFESSIONAL ELITE
Chrome Extra Color 100 Film
KODAK Publication No. **E-126**
CAT 834 4970

Minor Revision 4-05
Printed in U.S.A.