

# KODAK EKTACHROME 100D Color Reversal Film 5285 / 7285

Kodak

## TECHNICAL DATA / COLOR REVERSAL FILM

February 2010 • H-1-5285

KODAK EKTACHROME 100D Color Reversal Film 5285 / 7285 is a 100-speed, high-color reversal motion picture camera film intended for photography under daylight illumination (5500K). It offers strikingly saturated color performance while maintaining a neutral gray scale and accurate flesh reproduction.

5285/7285 Film has exceptional sharpness that is unsurpassed by any other 100-speed reversal film, and its grain performance is excellent. This film also offers very strong reciprocity uniformity and keeping stability.

This film offers outstanding results in outdoor and studio applications where strong color saturation is desired. It is excellent for advertising, nature cinematography, documentaries, music videos, and is especially good for telecine transfers and television filming.

5285 Film is available in 35mm formats. 7285 Film is available in several 16mm formats, as well as Super 8 50-ft cartridges.

### BASE

Acetate safety base.

### STORAGE

Store unexposed film at 13° C (55° F) or lower. For extended storage, store at -18° C (0° F) or lower. Process exposed film promptly. Store processed film according to the recommendations in NAPM IT9.11-1992: for medium-term storage (minimum of ten years), store at 10° C (50° F) or lower at a relative humidity of 20 to 30 percent; for extended-term storage (for preservation of material having permanent value), store at 2° C (35° F) or lower at a relative humidity of 20 to 30 percent. For active use, store at 25° C (77° F) or lower, at a relative humidity of 50 +/- 5 percent. This relates to optimized film handling rather than preservation; static, dust-attraction and curl-related problems are generally minimized at the higher relative humidity. After usage, the film should be returned to the appropriate medium- or extended-term storage condition as soon as possible.

For more information about medium- and extended-term storage, see NAPM IT9.11-1998, SMPTE RP131-2002, and KODAK Publications No. H-1, EASTMAN Professional Motion Picture Films and No. H-23, The Book of Film Care.

### EXPOSURE INDEXES

**Daylight (5500K):** 100

**Tungsten (3200K):** 25

Use these indexes with incident- or reflected-light exposure meters and cameras marked for ISO or ASA speeds or exposure indexes. These indexes apply for meter readings of average subjects made from the camera position or for readings made from a gray card of 18-percent reflectance held close to and in front of the subject. For unusually light- or dark-colored subjects, decrease or increase the exposure indicated by the meter accordingly.

### Super 8 Exposure

Some older cameras may automatically set the exposure to ISO 160. In many situations, results at an ISO 160 exposure setting (approximately 1/2 stop underexposed) would still be acceptable.

It is believed that the majority of S8 cameras manufactured prior to 1970 came with a fixed film exposure setting of ISO 40. At an ISO 40 exposure setting (approximately 1 1/4 stop overexposed), this film would require either the use of a neutral density filter (approximately 0.3 ND) or Process E-6 "Pull Processing" to compensate for the overexposure. Prior to exposing the film at an ISO 40 setting, verify with your processing laboratory that they offer the appropriate Process E-6 "Pull Process."

### DARKROOM RECOMMENDATIONS

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

### EXPOSURE TABLE - DAYLIGHT ILLUMINATION

At 24 frames per second (fps), 170-degree shutter opening:

Lens Aperture	f/1.4	f/2	f/2.8	f/4	f/5.6	f/8	f/11
Footcandles Required	25	50	100	200	400	800	1600

### RECIPROCITY CHARACTERISTICS

You do not need to make any filter corrections or exposure adjustments for exposure times from 1/10,000 to 1 second.

## COLOR BALANCE

This film is balanced for exposure with daylight illumination (5500K). For other light sources, use the correction filters in the table below.

Light Source	KODAK Filters on Camera*	Exposure Index
Daylight (5500 K)	None	100
Tungsten (3000 K)	WRATTEN Gelatin No. 80A	25
Tungsten (3200 K)	WRATTEN Gelatin No. 80A	25
Fluorescent, Cool White	Color Compensating Filter CC20M	80
Fluorescent, Deluxe Cool White	WRATTEN Gelatin No. 82C	80
Metal Halide (H.M.I.)	None	100

\* These are approximate corrections only.

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

### Color Balance and Filtration with Older S8 Cameras

Many cameras utilize an internal conversion filter to convert daylight illumination into a tungsten balance. This amber-colored filter is placed into the optical path when the manual selector is placed on the sun setting (the sun icon). With the daylight balanced 100D Film, it will be necessary to disengage this filter. Although it may sound counter-intuitive, this is accomplished by setting the manual exposure setting to the tungsten setting (the bulb icon), no matter what conditions you are shooting under. If you will be using 100D Film under tungsten illumination, we recommend the use of an 80A external filter.

Consult the camera manufacturer's manual for specific information on your camera's operation.

## PROCESSING

Process this film in KODAK Chemicals, Process E-6, cine machine only.

**Note:** KODAK EKTACHROME 100D Color Reversal Film 5285 / 7285 contains 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, the reversal bath, the final wash, and the final rinse. This solution discoloration is only cosmetic. It will not affect sensitometry or the quality of any Process E-6 film or control material. However, the solutions will cause splicing tape and processing equipment (rollers, racks, etc.) to have a pinkish color. The pink dye residue can easily be washed off processing equipment by following normal maintenance procedures.

## IDENTIFICATION

After processing, the product code numbers (5285 or 7285), emulsion and roll number identification, KEYKODE numbers, and internal product symbol (EA) are visible along the length of the film.

## FILM-TO-TAPE TRANSFERS

When you transfer the film directly to video, you can set up the telecine using the KODAK EKTACHROME Telecine Analysis Film (TAF) supplied by Eastman Kodak Company. The TAF consists of a neutral density scale and an eight-bar color test pattern with a LAD gray surround.

The TAF gray scale provides the telecine operator (colorist) with an effective way to adjust subcarrier balance and to center the telecine controls before timing and transferring a film. The TAF color bars provide the utility of electronic color bars, even though they do not precisely match the electronically generated color bars. Using the TAF will help obtain optimum quality and consistency in the film-to-video transfer. For more information regarding TAF, see KODAK Publication No. H-822, KODAK Telecine Analysis Film User's Guide.

## IMAGE STRUCTURE

The modulation-transfer and diffuse rms granularity curves were generated from samples of 5285 Film exposed with daylight illumination and processed as recommended in Process E-6 chemicals. For more information on image-structure characteristics, see KODAK Publication No. H-845, *The Essential Reference Guide for Filmmakers*, available online at [http://motion.kodak.com/US/en/motion/Support/Technical\\_Information/Essential\\_reference\\_guide/index.htm](http://motion.kodak.com/US/en/motion/Support/Technical_Information/Essential_reference_guide/index.htm).

### Modulation Transfer Function

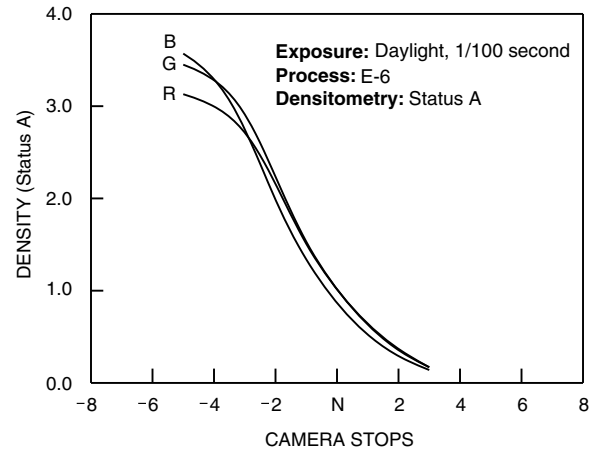
The "perceived" sharpness of any film depends on various components of the motion picture production system. The camera and projector lenses and film printers, among other factors, all play a role. But the specific sharpness of a film can be measured and is charted in the Modulation Transfer Function Curve.

### rms Granularity

The "perception" of the graininess of any film is highly dependent on scene content, complexity, color, and density. Other factors, such as film age, processing, exposure conditions, and telecine transfer may also have significant effects.

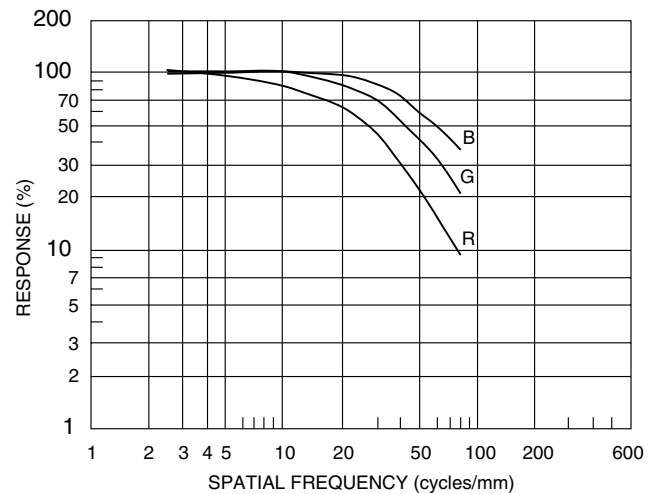
## CURVES

### Characteristic Curves



F002\_1044AC

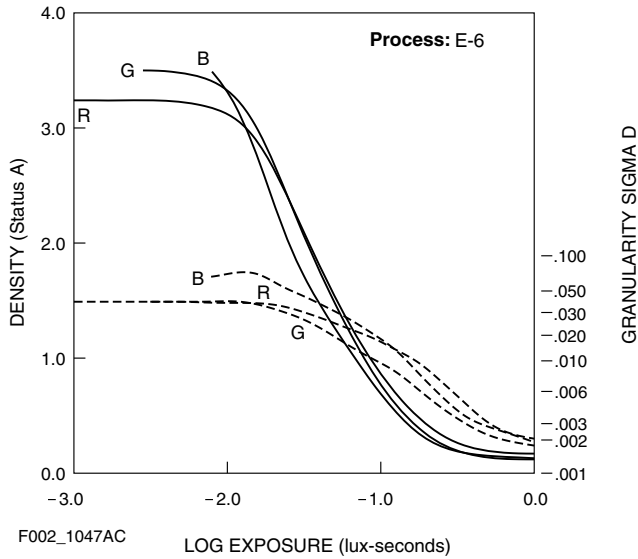
### Modulation Transfer Function Curves



F002\_1043AC

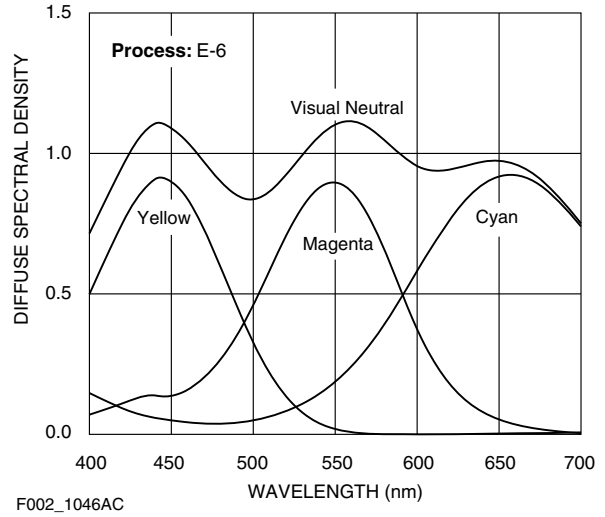
MTF curve - This graph shows a measure of the visual sharpness of the film. The x-axis, "Spatial Frequency", refers to the number of sine waves per millimetre that can be resolved. The y-axis, "Response", corresponds to film sharpness. The longer and flatter the line, the more the film can resolve, and therefore, the sharper the film.

### Diffuse rms Granularity Curves



To find the rms Granularity value for a given density, find the density on the left vertical scale and follow horizontally to the characteristic curve and then go vertically (up or down) to the granularity curve. At that point, follow horizontally to the Granularity Sigma D scale on the right. Read the number and multiply by 1000 for the rms value. Note: This curve represents granularity based on modified measuring techniques. A slight variation from sensitometric curve may be noticed.

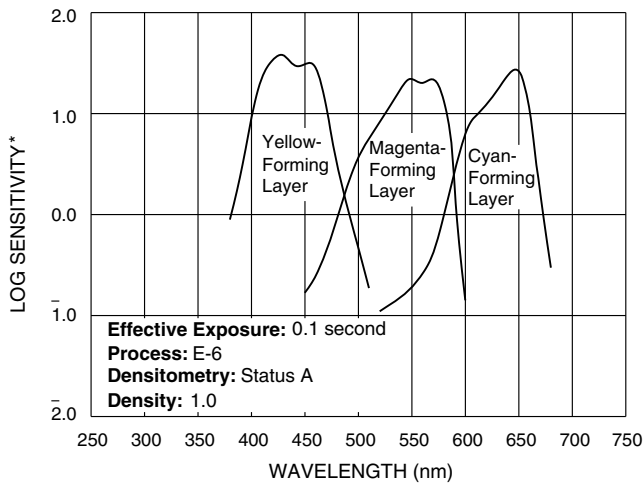
### Spectral Dye Density Curves



These curves depict the spectral absorptions of the dyes formed when the film is processed. They are useful for adjusting or optimizing any device that scans or prints the film.

**Note:** Cyan, Magenta, and Yellow Dye Curves are peak-normalized.

### Spectral Sensitivity Curves



\*Sensitivity = reciprocal of exposure (ergs/cm<sup>2</sup>) required to produce specified density

F002\_1045AC

These curves depict the sensitivity of this film to the spectrum of light. They are useful for determining, modifying, and optimizing exposure for blue- and green-screen special-effects work.

### SIZES AVAILABLE

#### Standard Products Available

Identification No.	Length in Metres (Feet)	Core	Description	Perforations
35 mm KCR727	305 (1000)	U		BH-4740 (BH-1866)
16 mm SP455	30 (100)	R-90	Winding B	1R-7605 (1R-2994)
16 mm SP457	122 (400)	T	Winding B	1R-7605 (1R-2994)
16 mm SP467	122 (400)	Z	8 mm-2 Edges	2R-1497
Super 8 SP464	15 (50)	Cartridge	Winding B	

# KODAK EKTACHROME 100D Color Reversal Film 5285 / 7285

FOR DIRECT ORDERING IN THE UNITED STATES AND CANADA: 1-800-621-FILM

KODAK SHOOTSAVER Film Delivery Service (U.S. only) 1-800-404-2016

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Cinecolor Chile (Chilefilms S.A.)  
(Kodak Motion Picture Authorized  
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Phone: 56.2.209.1396

COLOMBIA  
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Picture Authorized Distributor)  
Phone: 57.1. 743.2323 x-6043

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Veinco Cia. Ltda. (Kodak Motion Picture  
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Phone: 59.3.2256.5738/593.2254.2229

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