

# KODAK Bright Sun Film / GA



KODAK Bright Sun Film is a color negative film that offers the best combination of color saturation, color accuracy, and sharpness at ISO 100. It is designed for general picture-taking situations in daylight or with electronic flash. You can also expose this film under photolamps (3400 K) or tungsten illumination (3200 K) with filters.

KODAK Bright Sun Film features excellent color accuracy and saturation and high sharpness and resolution. It also features wide exposure latitude—from two stops underexposure to three stops overexposure.

Other features include—

Features	Benefits
<ul style="list-style-type: none"> <li>Excellent latent-image keeping characteristics</li> </ul>	<ul style="list-style-type: none"> <li>Excellent consistency</li> <li>Excellent processing robustness</li> </ul>
<ul style="list-style-type: none"> <li>Similar printing characteristics</li> </ul>	<ul style="list-style-type: none"> <li>One-channel printing</li> </ul>
<ul style="list-style-type: none"> <li>Outstanding sharpness and high resolution</li> </ul>	<ul style="list-style-type: none"> <li>Ideal for use in daylight</li> <li>Great for enlargements</li> </ul>
<ul style="list-style-type: none"> <li>Designed for processing in KODAK FLEXICOLOR Chemicals for Process C-41</li> </ul>	<ul style="list-style-type: none"> <li>Processed in the same chemicals as KODAK ROYAL GOLD, KODAK MAX, KODAK PROFESSIONAL PORTRA and KODAK PROFESSIONAL SUPRA Films</li> </ul>
<ul style="list-style-type: none"> <li>Scanning compatibility</li> </ul>	<ul style="list-style-type: none"> <li>High-quality results from digital output systems</li> <li>Great prints from digital zoom and crop images</li> </ul>

## STORAGE AND HANDLING

Load and unload your camera in subdued light.

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

Protect negatives from strong light, and store them in a cool, dry place. For more information on storing negatives, 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

### Film Speed

Use these speed numbers in the table below with cameras or meters marked for ISO, ASA, or DIN speeds or exposure indexes. Do not change the film-speed setting when you use a filter if your camera has through-the-lens metering. For critical work, make a series of test exposures.

ISO/DIN Speed and KODAK WRATTEN Gelatin Filter*		
Daylight	Photolamp (3400 K)	Tungsten (3200 K)
100/21°	32/16° No. 80B	25/15° No. 80A

\*For best results without special printing.

### Daylight

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

Lighting Conditions	Shutter Speed (seconds)	Lens Opening
Bright/Hazy Sun on Light Sand or Snow	1/125	f/16
Bright or Hazy Sun, Distinct Shadows*	1/125	f/11
Weak, Hazy Sun, Soft Shadows	1/125	f/8
Cloudy Bright, No Shadows	1/125	f/5.6
Heavy Overcast, Open Shade†	1/125	f/4

\* Use f/5.6 for backlit close-up subjects.

† Subject shaded from the sun but lighted by a large area of sky.

## Electronic Flash

Use the appropriate guide numbers in the table below as a starting point for your equipment. Select the unit output closest to the number given by your flash manufacturer. Then find the guide number for feet or meters.

To determine the lens opening, divide the guide number by the flash-to-subject distance. If negatives are too dark (overexposed), use a higher guide number; if they are too light (underexposed), use a lower number.

Unit Output (BCPS)*	Guide Number Distances in Feet/Meters
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

For best results without special printing, use the color-correction filters in the table below as starting points when you expose this film under fluorescent and high-intensity discharge lamps. Use exposure times of 1/60 second or longer to avoid the brightness and color variations that occur during a single alternating-current cycle.

Actual filtration may vary between lamps and lamp manufacturers. Depending on the specific source, additional filtration or special printing may be required to achieve best results.

Fluorescent Lamp Type	KODAK Color Compensating Filter(s)	Exposure Adjustment
Daylight	40R	+ 2/3 stop
White	20C + 30M	+ 1 stop
Warm White	40B	+ 1 stop
Warm White Deluxe	30B + 30C	+ 1 1/3 stops
Cool White	30M	+ 2/3 stop
Cool White Deluxe	20C + 10M	+ 2/3 stop

**Note:** When you don't know the type of fluorescent lamps, try a 10C + 20M filter combination and increase exposure by 2/3 stop; color rendition may be less than optimum.

Type of High-Intensity Discharge Lamp	KODAK Color Compensating Filter(s)	Exposure Adjustment
High-Pressure Sodium Vapor	70B + 50C	+ 3 stops
Metal Halide	10R + 20M	+ 2/3 stop
Mercury Vapor with Phosphor	20R + 20M	+ 2/3 stop
Mercury Vapor w/o Phosphor (clear envelope)	80R	+ 1 2/3 stops

**Note:** Some primary color filters were used in the tables above to reduce the number of filters and/or to 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

You do not need to make any exposure or filter adjustments for exposure times of 1/10,000 second to 10 seconds with KODAK Bright Sun Film. We do not recommend exposure times longer than 100 seconds.

## PROCESSING

Use KODAK FLEXICOLOR Chemicals for Process C-41. For more information, see KODAK Publication No. Z-131, *Using KODAK FLEXICOLOR Chemicals*.

## JUDGING NEGATIVE EXPOSURES

You can check the exposure level of the color negative with a suitable electronic densitometer equipped with a filter such as the red filter for Status M Densitometry or a KODAK WRATTEN Gelatin Filter No. 92. Depending on the subject and the light source used for exposure, a normally exposed and processed color negative measured through the red filter should have the approximate densities listed below. These densities apply for the recommended light sources and correct processing of the negative.

Area on the Negative	Densities
KODAK Gray Card* (gray side) receiving the same illumination as the subject	0.90 to 1.10
Lightest step (darkest in the negative) of a KODAK Paper Gray Scale receiving the same illumination as the subject	1.30 to 1.50
Normally lighted forehead of person with light complexion†	1.20 to 1.50
Normally lighted forehead of person with dark complexion†	0.95 to 1.35

\*KODAK Publication No. R-27

†Because of the extreme range in skin color, use these values only as a guide. For best results, use a KODAK Gray Card (gray side).

## PRINTING NEGATIVES

This film is optimized for printing on KODAK EDGE Generations, KODAK EKTACOLOR EDGE 8, KODAK ROYAL Generations, KODAK EKTACOLOR ROYAL VIII, KODAK EKTACOLOR EDGE 9 AP, and KODAK EKTACOLOR ROYAL IX AP, and KODAK PROFESSIONAL Color Metallic Papers. The film can also be printed on KODAK EKTACOLOR EDGE 7 Paper.

Make color slides and transparencies by printing the negatives on KODAK VERICOLOR Slide Film, KODAK PROFESSIONAL ENDURA Transparency Optical Display Material, or KODAK PROFESSIONAL ENDURA Clear Optical Display Material.

You can scan an image to a file and print digitally to KODAK PROFESSIONAL ULTRA ENDURA Paper, KODAK PROFESSIONAL Color Metallic Paper, KODAK PROFESSIONAL ENDURA Transparency Digital Display Material, KODAK PROFESSIONAL ENDURA Clear Digital Display Material, and KODAK PROFESSIONAL DURAFLEX® Plus Digital Display Material.

Make black-and-white prints on KODAK PANALURE SELECT RC Papers for conventional black-and-white processing or on KODAK PROFESSIONAL PORTRA Black & White Paper for Process RA-4. Starting recommendations for KODAK EKTACOLOR Edge 8 Paper are available online at [www.kodak.com/go/photofinishing](http://www.kodak.com/go/photofinishing).

## RETOUCHING

Negatives on this film can be retouched on the emulsion side with retouching pencils, after applying a retouching fluid, such as KODAK Retouching Fluid.

## IMAGE STRUCTURE

### Print Grain Index

The Print Grain Index number refers to a method of defining graininess in a print made with diffuse-printing illumination. It replaces rms granularity and has a different scale which cannot be compared to rms granularity

- This method uses a uniform perceptual scale, with a change for four units equaling a *just noticeable difference* in graininess for 90 percent of observers.
- A Print Grain Index rating of 25 on the scale represents the approximate visual threshold for graininess. A higher number indicates an increase in the amount of graininess observed.
- The standardized inspection (print-to-viewer) distance for all print sizes is 14 inches, the typical viewing distance for a 4 x 6-inch print.
- In practice, larger prints will likely be viewed from distances greater than 14 inches, which reduces apparent graininess.

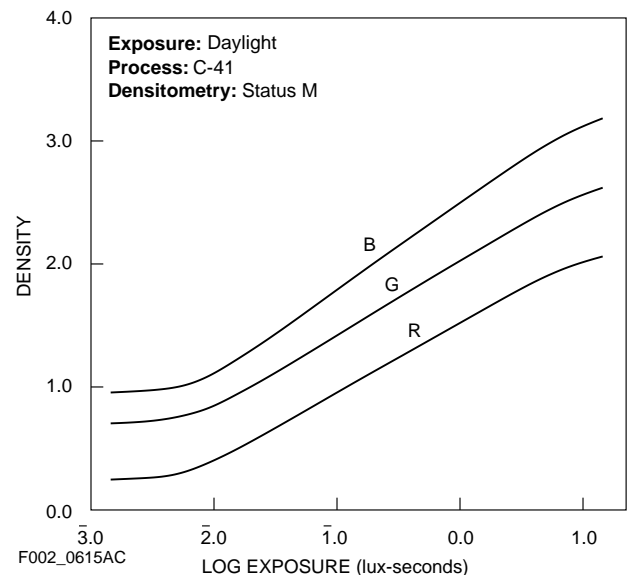
- Print Grain Index numbers may not represent graininess observed from more specular printing illuminants, such as condenser enlargers.

The Print Grain Index number listed in this publication applies to the following standards:

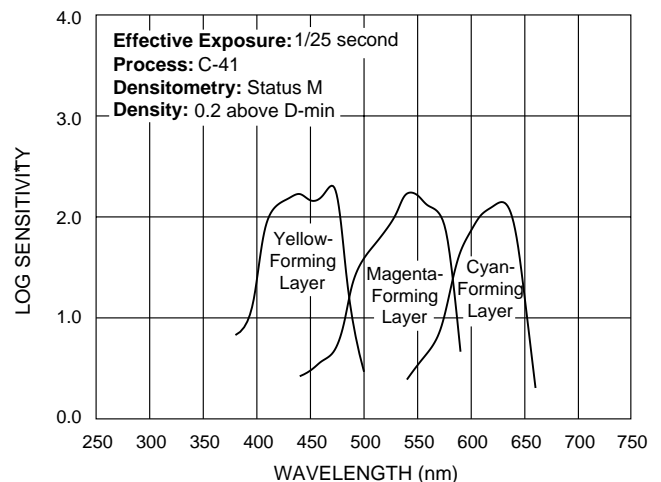
<b>Negative size:</b>	24 x 36 mm (135-size standard format)
<b>Print Size in inches:</b>	4 x 6
<b>Print Size in centimeters:</b>	10.2 x 15.2
<b>Magnification:</b>	4.4X
<b>Print Grain Index number:</b>	45

## CURVES

### Characteristic Curves



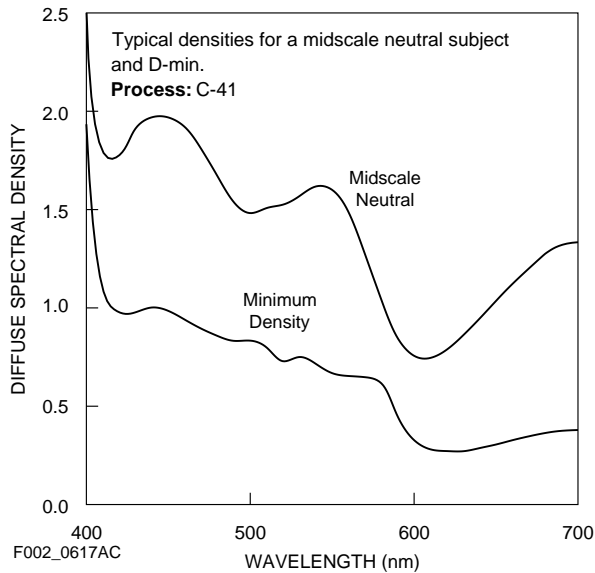
### Spectral-Sensitivity Curves



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

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## 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.

## 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.

The following publications are available from Kodak Customer Service and 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-2452 *KODAK MAX Zoom 800 Film*
- E-2512 *KODAK EKTACOLOR Edge 8 Paper*
- E-2513 *KODAK EKTACOLOR ROYAL VIII Paper*
- G-4006 *KODAK PROFESSIONAL PORTRA Black & White Paper*
- G-27 *KODAK PANALURE SELECT RC Paper*
- E-2446 *KODAK PROFESSIONAL Digital III Color Paper*
- E-119 *KODAK PROFESSIONAL Digital Print and Display Materials*
- E-143 *KODAK PROFESSIONAL Display and Print Materials*

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 are available from dealers who supply Kodak products. You can use other materials, but you may not obtain similar results.

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