

KODAK GOLD 100 and 200 Films

Kodak

TECHNICAL DATA / COLOR NEGATIVE FILM

February 2007 • E-7022

KODAK GOLD 100 and 200 Films are low-speed color negative films that offer an outstanding combination of color saturation, fine grain, and high sharpness. They are 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. They also feature wide exposure latitude—from two stops underexposure to three stops overexposure.

Other features include—

| Features | Benefits |
|---|--|
| <ul style="list-style-type: none">• Saturated colors | <ul style="list-style-type: none">• Bright, colorful prints |
| <ul style="list-style-type: none">• Fine grain and high sharpness | <ul style="list-style-type: none">• Great for enlargements• High-quality results when scanned for digital output• Great prints from digital zoom and crop images |

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. 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* | ISO Speed | |
|------------------------------|-------------------------------|---------------|---------------|
| | | Gold 100 Film | Gold 200 Film |
| Daylight or Electronic Flash | None | 100 | 200 |
| Photolamp (3400 K) | No. 80B | 32 | 64 |
| Tungsten (3200 K) | No. 80A | 25 | 50 |

* 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 (second) and Lens Opening | |
|--|---|----------------|
| | Gold 100 Film | Gold 200 Film |
| Bright or Hazy Sun on Light Sand or Snow | 1/125 f/16 | 1/250 f/16 |
| Bright or Hazy Sun (Distinct Shadows) | 1/125 f/11* | 1/250 f/11* |
| Weak, Hazy Sun (Soft Shadows) | 1/125 f/8 | 1/250 f/8 |
| Cloudy Bright (No Shadows) | 1/125 f/5.6 | 1/250 f/5.6 |
| Heavy Overcast or Open Shade† | 1/125 f/4 | 1/250 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/Metres | |
|---------------------|---------------------------------------|---------------|
| | Gold 100 Film | Gold 200 Film |
| 350 | 40/12 | 60/18 |
| 500 | 50/15 | 70/21 |
| 700 | 60/18 | 85/26 |
| 1000 | 70/21 | 100/30 |
| 1400 | 85/26 | 120/36 |
| 2000 | 100/30 | 140/42 |
| 2800 | 120/36 | 170/50 |
| 4000 | 140/42 | 200/60 |
| 5600 | 170/50 | 240/70 |
| 8000 | 200/60 | 280/85 |

* 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.

| Type of Fluorescent Lamp | 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.

| High-Intensity Discharge Lamp (CCT) | 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 without Phosphor | 80R | + 1 2/3 stops |

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 1 second. For critical applications with longer exposure times, make tests under your conditions.

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 Measured | Density Reading | |
|--|------------------------------|------------------------------|
| | GOLD 100 Film | GOLD 200 Film |
| KODAK Gray Card (gray side) receiving same illumination as subject | 0.90 to 1.10 | 0.85 to 1.05 |
| Lightest step (darkest in the negative) of a KODAK Paper Gray Scale receiving same illumination as subject | 1.30 to 1.50 | 1.25 to 1.45 |
| Highest diffuse density on normally lighted forehead —light complexion —dark complexion | 1.20 to 1.50 0.95 to 1.35 | 1.15 to 1.45 0.90 to 1.30 |

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.

PRINTING NEGATIVES

This film is optimized for printing on KODAK EKTACOLOR EDGE Paper, KODAK ROYAL Digital Color Paper, and KODAK PROFESSIONAL ENDURA Metallic Paper.

Make color slides and transparencies by printing the negatives on KODAK PROFESSIONAL ENDURA Transparency Display Material or KODAK PROFESSIONAL ENDURA Clear Display Material.

You can scan an image to a file and print digitally to KODAK EKTACOLOR EDGE Paper, KODAK ROYAL Digital Color Paper, KODAK PROFESSIONAL ENDURA Papers, KODAK PROFESSIONAL ENDURA Metallic Paper, KODAK PROFESSIONAL ENDURA Transparency Display Material, or KODAK PROFESSIONAL ENDURA Clear Display Material.

Make black-and-white prints on any of the materials mentioned above using the recommendations in KODAK Publication CIS-274, *Printing Black-and-White Images Without KODAK Black-and-White Papers*.

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

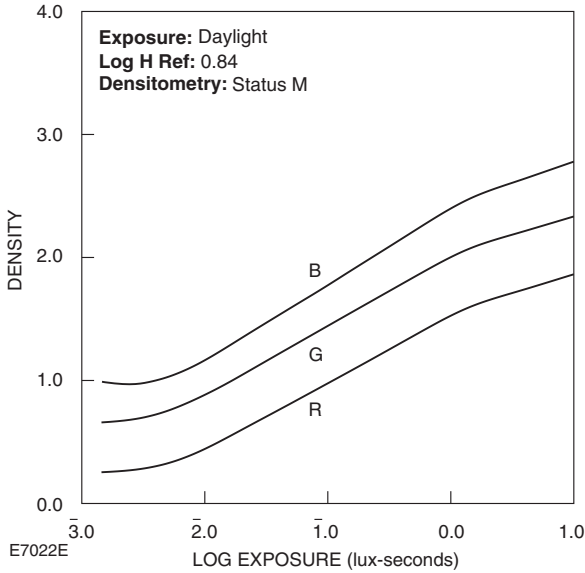
- This method uses a uniform perceptual scale, with a change for four units equaling a *just noticeable difference* in graininess for 90 percent of observers.
- A Print Grain Index rating of 25 on the scale represents the approximate visual threshold for graininess. A higher number indicates an increase 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:

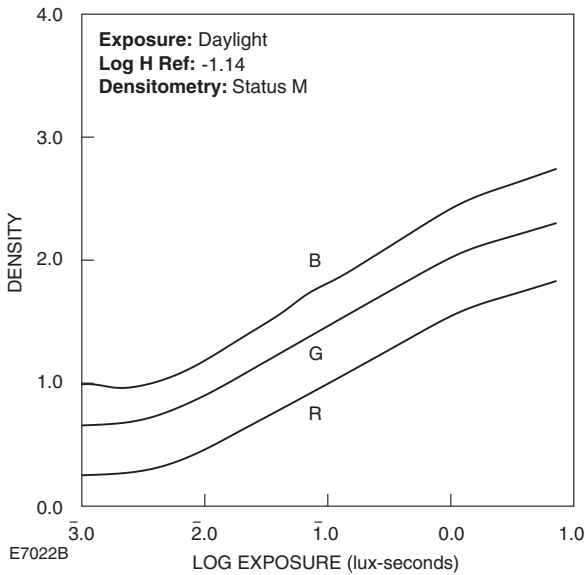
| | |
|-----------------------------------|--|
| Negative size: | 24 x 36 mm (135-size standard format) |
| Print Size in inches: | 4 x 6 |
| Print Size in centimeters: | 10.2 x 15.2 |
| Magnification: | 4.4X |
| Print Grain Index for— | |
| GOLD 100 Film | 42 |
| GOLD 200 Film | 44 |

CURVES

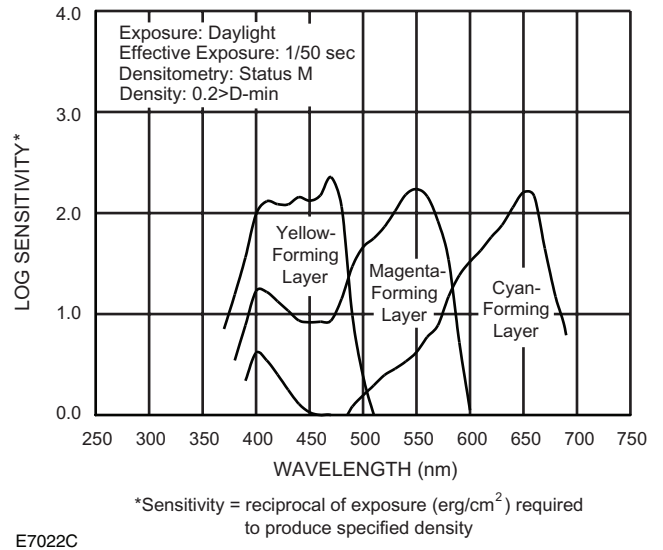
KODAK GOLD 100 Film Characteristic Curves



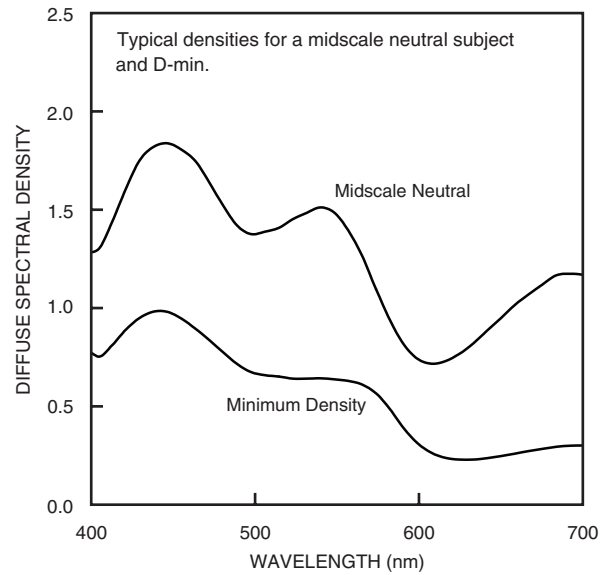
KODAK GOLD 200 Film Characteristic Curves



Spectral-Sensitivity Curves



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-7019 *KODAK MAX Versatility Film*
- E-7018 *KODAK MAX Versatility Plus Film*
- E-4035 *KODAK PROFESSIONAL ULTRA COLOR Films*
- E-4040 *KODAK PROFESSIONAL PORTRA Films*
- E-7020 *KODAK EKTACOLOR EDGE Paper*
- E-7021 *KODAK ROYAL Digital Color Paper*
- E-4020 *KODAK PROFESSIONAL ULTRA ENDURA Paper*
- E-4021 *KODAK PROFESSIONAL PORTRA and SUPRA ENDURA
Papers*
- E-4038 *KODAK PROFESSIONAL ENDURA Transparency and Clear
Display 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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