

KODAK MAX Versatility Film



KODAK MAX Versatility Film lets you take your pictures to the next level. Its proprietary technology delivers the world's most convenient 400-speed film, so you can capture more of your precious moments. Whether your subjects are still or moving fast, in sunlight or dim light, MAX Versatility Film gives you great results. If you currently use 100- or 200-speed film, switching to this amazingly adaptable film will improve up to 25 percent of the pictures you take.

KODAK MAX Versatility Film offers improved performance in all key photographic features. It delivers a great combination of brilliant color saturation and accurate color reproduction to give you clear, crisp prints. Now the choice is simple. To capture your special and everyday moments with confidence, make your choice MAX Versatility Film.

FEATURES	BENEFITS
<ul style="list-style-type: none"> • Maximum versatility 	<ul style="list-style-type: none"> • Great pictures in sunlight or low light, in action or still • The world's most versatile 400-speed film choice
<ul style="list-style-type: none"> • ISO 400 	<ul style="list-style-type: none"> • Great pictures in a wide range of lighting conditions • Better pictures in low light* • Sharper pictures with moving subjects* • Extended flash range for better flash pictures* • Reduced effect of "camera shake"† • Better depth of focus capabilities*
<ul style="list-style-type: none"> • Improved color reproduction 	<ul style="list-style-type: none"> • Bright, vibrant prints • Consistent color under most lighting conditions
<ul style="list-style-type: none"> • Optimized skin tones 	<ul style="list-style-type: none"> • Pleasing, natural-looking "people pictures"‡
<ul style="list-style-type: none"> • Improved image structure 	<ul style="list-style-type: none"> • Finer grain for clear, sharp pictures • Great for enlargements • Improved prints from underexposed negatives
<ul style="list-style-type: none"> • Improved illuminant insensitivity 	<ul style="list-style-type: none"> • Less print coloration with images taken under fluorescent lights
<ul style="list-style-type: none"> • Scanning compatibility 	<ul style="list-style-type: none"> • High-quality results from digital output systems • Great prints from digital zoom and crop images
<ul style="list-style-type: none"> • Photofinishing compatibility 	<ul style="list-style-type: none"> • Printing compatibility with KODAK GOLD and KODAK MAX Films

*Compared to lower-speed films

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: ISO/DIN 400/27°

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.

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	1/500	f/16
Bright or Hazy Sun (Distinct Shadows)*	1/500	f/11
Weak, Hazy Sun (Soft Shadows)	1/500	f/8
Cloudy Bright (No Shadows)	1/500	f/5.6
Heavy Overcast, Open Shade†	1/500	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 number 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 metres.

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	
	Distance in Feet	Distance in Meters
350	85	26
500	100	30
700	120	36
1000	140	42
1400	170	50
2000	200	60
2800	240	70
4000	280	85
5600	340	105
8000	400	120

*BCPS = beam candlepower seconds

Fluorescent and High-Intensity Discharge Lights

For best results without special printing, use the color-correction filters in the table below as starting points when you expose these films 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.

Type of Fluorescent Lamp	KODAK Color Compensating Filters	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	10C + 10M	+ 2/3 stop

Note: When you do not 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 Filters	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

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. Exposures longer than 10 seconds may require compensation and filtration. For critical applications make tests under your conditions.

PROCESSING

Process in KODAK FLEXICOLOR Chemicals for Process C-41.

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 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.

Densities of Properly Exposed and Processed Negatives

Area Measured on the Negative	Density Reading
The KODAK Gray Card [†] (gray side) receiving the same illumination as the subject	0.85 to 1.05
The lightest step (darkest in the negative) of a KODAK Paper Gray Scale receiving the same illumination as the subject	1.25 to 1.45
Normally lighted forehead of person with light complexion [†]	1.15 to 1.45
Normally lighted forehead of person with dark complexion [†]	0.90 to 1.30

*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 features similar printing characteristics to other KODAK MAX and KODAK GOLD Films.

This film is optimized for printing on KODAK EKTACOLOR Edge 8 and ROYAL VIII Papers. It can also be printed on KODAK PROFESSIONAL DURAFLEX® Print Materials.

Make color slides and transparencies by printing the negatives on KODAK VERICOLOR Slide Film, KODAK VERICOLOR Print Film or on KODAK PROFESSIONAL

DURATRANS® Display Material, or KODAK PROFESSIONAL DURACLEAR™ Display Material.

You can scan an image to a file and print digitally to KODAK PROFESSIONAL Digital III Color Paper, KODAK PROFESSIONAL DURATRANS® Plus Digital Display Material, KODAK PROFESSIONAL DURACLEAR™ Plus Digital Display Material, and KODAK PROFESSIONAL DURAFLEX® Digital Print 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.

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 Magnification Table:

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.

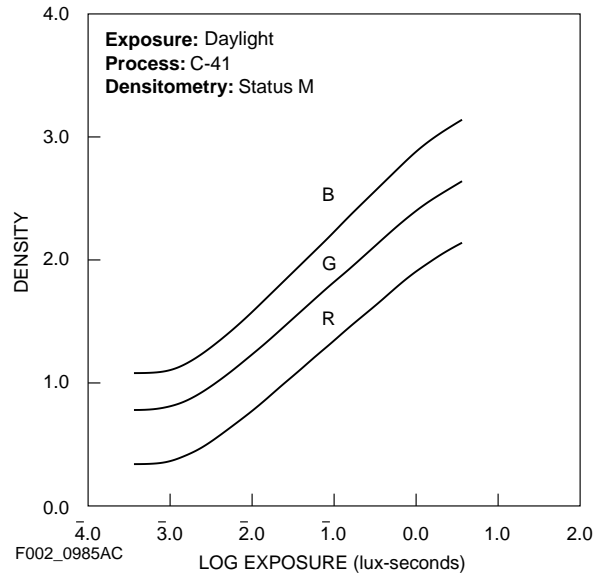
Print Grain Index numbers may not represent graininess observed from more specular printing illuminants, such as condenser enlargers.

The Print Grain Index numbers listed in this publication apply to the following standards:

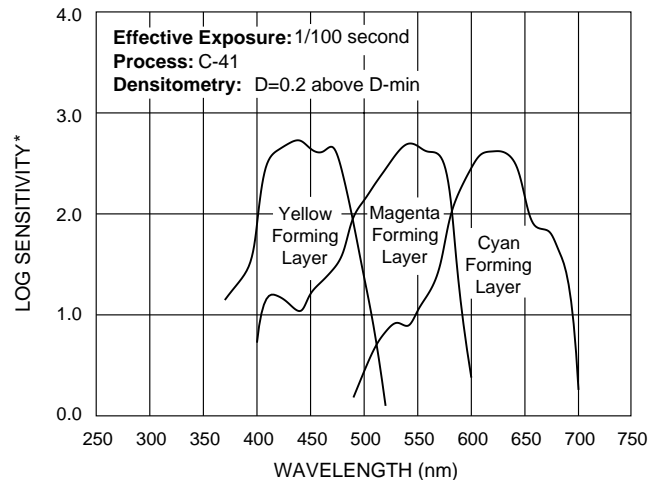
Negative Size:	24 x 36 mm (135-size standard format)
Print Size:	4 x 6 inches (10.2 x 15.2 cm)
Magnification:	4.4X
Print Grain Index:	48

CURVES

Characteristic Curves



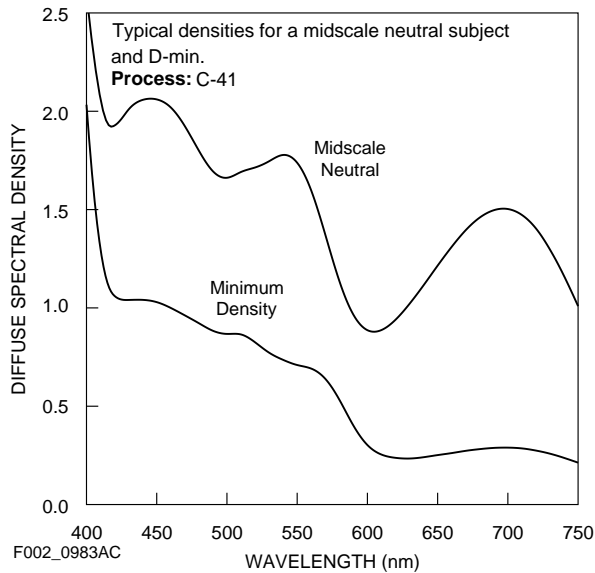
Spectral-Sensitivity Curves



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

KODAK MAX Versatility Film

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	<i>Storage and Care of KODAK Photographic Materials—Before and After Processing</i>
E-2452	<i>KODAK MAX Zoom 800 Film</i>
E-2512	<i>KODAK EKTACOLOR Edge 8 Paper</i>
E-2513	<i>KODAK EKTACOLOR ROYAL VIII Paper</i>
G-22	<i>KODAK EKTAMAX RA Professional Paper</i>
G-27	<i>KODAK PANALURE SELECT RC Paper</i>
E-2446	<i>KODAK PROFESSIONAL Digital III Color Paper</i>
E-119	<i>KODAK PROFESSIONAL Digital Print and Display Materials</i>
E-143	<i>KODAK PROFESSIONAL Display and Print Materials</i>

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.

Consumer Imaging
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