

KODAK VERICOLOR HC Professional Film

This improved color negative film has greater sharpness and finer grain than KODAK VERICOLOR II Commercial Film, Type S.

This film is ideal for commercial illustration, industrial applications, low-level aerial photography, environmental portraiture, and other applications that call for increased contrast. It may also be used for any copy work that needs increased contrast, and for outdoor portraiture under low-contrast lighting conditions, such as on cloudy days or in deep shade.

FEATURES	BENEFITS
• Extremely fine grain, extremely high sharpness, and high resolving power	 Produces excellent-quality high-contrast prints even with a high degree of enlargement
Built-in dye mask	 Makes excellent-quality color reproduction possible without supplementary masking
Balanced for exposure by daylight, blue flash, or electronic flash	• Allows exposures from 1/10 second to 1/10,000 second without filters
Designed for processing in Process C-41 chemicals	• Can be processed with KODACOLOR and other KODAK VERICOLOR Films

SIZES AVAILABLE

120 rolls on 3.6-mil acetate base

 $4 \times 5\text{-inch}, 8 \times 10\text{-inch}, 9 \times 12 \text{ cm}, \text{ and } 13 \times 18 \text{ cm}$ sheets on 7-mil ESTAR Thick Base

DARKROOM RECOMMENDATIONS

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

STORAGE AND HANDLING

Store unexposed film at 13°C (55°F) in its *original sealed* package. Before opening the package, allow a warm-up time of at least one hour at room temperature so that moisture will not condense on the film.

Process film as soon as possible after exposure.

Protect negatives from strong light and store them in a cool, dry place.

For more information, see KODAK Publication No. E-30, Storage and Care of KODAK Films and Papers—Before and After Processing.

EXPOSURE

Although this color-negative film has wide exposure latitude, follow the speed and filter recommendations in the table below for highest-quality prints. For critical work, use a reliable exposure meter and run exposure tests.

Light Source	KODAK WRATTEN Gelatin Filter*	ISO Speed	
Daylight Electronic Flash Blue flash	None	100/21°	
Photolamp (3400 K)	No. 80B	32/16°	
Tungsten (3200 K)	No. 80A	25/15°	

^{*}For best results without special printing.

Daylight

During the period from 2 hours after sunrise to 2 hours before sunset, use the exposures in the table below.

Lighting Conditions	Shutter Speed	Lens Opening
Bright or 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 or Open Shade†	1/125	f/4

^{*}For backlighted close-up subjects, use f/5.6.

Electronic Flash or Blue Flash

No filter is required. Select the guide number on the flashbulb package for the daylight film speed of ISO $100/21^\circ$. The guide number you select may also depend on the camera shutter speed, synchronization, and type of flash reflector.

To find the lens opening, divide the guide number by the flash-to-subject distance. If prints are consistently too blue, use a KODAK WRATTEN Gelatin Filter No. 81B and increase exposure by $^{1}/_{3}$ stop.



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

Electronic-Flash Guide Numbers:

Output of Unit (BCPS or ECPS)*	350	500	700	1000	1400	2000	2800	4000	5600	8000
Guide Number for Distances in Feet	40	50	60	70	85	100	120	140	170	200
Guide Number for Distances in Metres	12	15	18	21	26	30	36	42	50	60

^{*}BCPS stands for beam candlepower seconds; ECPS stands for effective candlepower seconds.

Clear Flash

With aluminum-filled clear lamps, use a KODAK WRATTEN Gelatin Filter No. 80C over the lens. With zirconium-filled clear lamps, use a KODAK WRATTEN Gelatin Filter No. 80D.

Fluorescent Light

For best results without special printing, use the color-correction filters and exposure adjustments in the table below to expose this film under fluorescent lighting. When you don't know the type of lamp, try a 10C + 20M filter pack and increase exposure by $^2/_3$ stop; color rendition will be less than optimum.

Type of Fluorescent Lamp	KODAK Color Compensating Filter	Suggested Exposure Increase
Daylight	40M + 40Y	1 stop
White	20C + 30M	1 stop
Warm White	40C + 40M	1⅓ stops
Warm White Deluxe	60C + 30M	2 stops
Cool White	30M	²/₃ stop
Cool White Deluxe	20C + 10M	²/₃ stop

Adjustments for Long and Short Exposures

Exposure Time* (seconds)	KODAK Color Compensating Filter	Suggested Exposure Increase	
1/10,000 to 1/10	None	None	
1.0	CC20Y	1 Stop	

^{*}Do not use exposure times longer than one second.

PROCESSING

Process KODAK VERICOLOR HC Professional Film using KODAK FLEXICOLOR Chemicals for Process C-41. For large-volume processing, see KODAK Publication No. Z-121, *Using Process C-41*.

PRINTING

The printing characteristics of KODAK VERICOLOR HC Professional Film are similar to those of KODAK VERICOLOR II Commercial Film, Type S.

Make color prints by enlarging or contact-printing onto KODAK EKTACOLOR Papers or KODAK DURAFLEX Print Material, or by the dye transfer process.

Make color transparencies by direct exposure onto KODAK VERICOLOR Print Film 4111 (ESTAR Thick Base), KODAK VERICOLOR Slide Film 5072, or KODAK DURATRANS Display Material.

Make black-and-white prints on KODAK PANALURE Paper or KODAK PANALURE II RC Paper.

Judging Negative Exposure

You can check the exposure level of negatives with a suitable electronic densitometer equipped with a filter such as the KODAK WRATTEN Gelatin Filter No. 92 or the red filter of the KODAK Densitometer Filter Set MM (Certified). Depending on the subject and the light source used for exposure, a normally exposed color negative should have the red diffuse densities given in the table below.

Densities on Properly Exposed and Processed Negatives			
Area on the Negative	Red Diffuse Density		
The KODAK Gray Card* (gray side) receiving the same illumination as the subject	0.80 to 1.00		
The lightest step (darkest in the negative) of a KODAK Paper Gray Scale receiving the same illumination as the subject	1.20 to 1.40		
Normally lighted forehead of person with light complexion†	1.10 to 1.40		
Normally lighted forehead of person with dark complexion†	0.90 to 1.30		

^{*}KODAK Publication No. R-27

IMAGE-STRUCTURE CHARACTERISTICS

Diffuse RMS Granularity* 6.0

Resolving Power†	TOC	1.6:1	50 lines/mm
l	TOC	1000:1	100 lines/mm

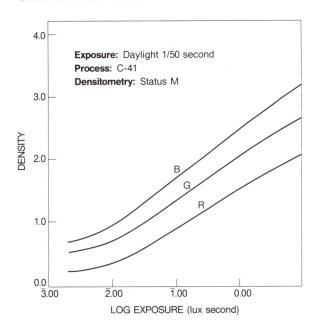
^{*}Read at a net diffuse density of 1.0 using a 48-micrometre aperture at 12X magnification.

[†]Because of the extreme range in skin color, use these values only as a guide. For the greatest likelihood of normal exposure, use the KODAK Gray Card (gray side) instead.

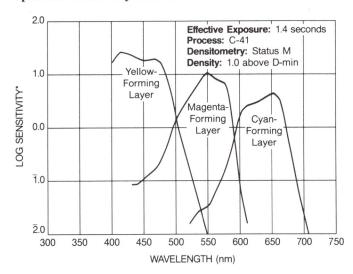
[†]Determined according to a method similar to that described in ANSI Standard No. PH2.33-1969, *Method for Determining the Resolving Power of Photographic Materials.*

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Characteristic Curves

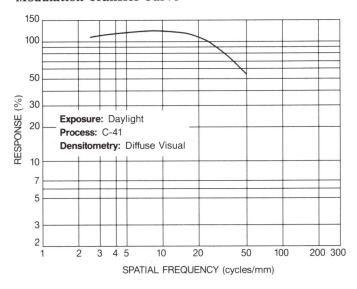


Spectral-Sensitivity Curves

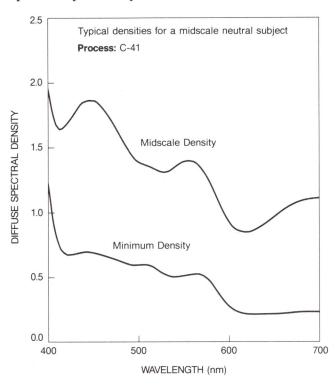


*Sensitivity = reciprocal of exposure (ergs/cm²) required to produce specified density

Modulation-Transfer Curve



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.

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ORDERING INFORMATION

Size/Format	CAT No.	
One 120 roll	821 9685	
120 Pro-Pack (5 rolls)	842 7924	
4 x 5-inch sheets (10-sheet package)	844 2634	
8 x 10-inch sheets (10-sheet package)	848 1608	
9 x 12 cm sheets (10-sheet package)	811 9778	
13 x 18 cm sheets (10-sheet package)	812 6732	

MORE INFORMATION

See the Kodak publications listed below for more information about Kodak color films. Priced publications are available from dealers who sell Kodak products, or you can order directly from Kodak with the order form in KODAK Publication No. L-5, *Index to KODAK Information*. To obtain a copy of the *Index*, send your request with \$1.00 to Eastman Kodak Company, Department 412-L, Rochester, New York 14650.

- AF-1 KODAK Films—Color and Black-and-White
- E-30 Storage and Care of KODAK Films and Papers— Before and After Processing*
- E-77 KODAK Color Films and Papers for Professionals
- E-97 Professional Photographic Retouching Techniques
- F-40 Conservation of Photographs

The Kodak materials described in this publication for use with KODAK VÈRICOLOR HC Professional Film are available from those dealers normally supplying Kodak products. Other materials may be used, but similar results may not be obtained.

Photographic Products Group





^{*}To obtain a complimentary copy of this publication, send your request to Eastman Kodak Company, Dept. 412-L, Rochester, NY 14650.