KODAK Pro 100T Film / PRT

—NOTICE—
This film has been discontinued. As a recommended alternative, we suggest KODAK PROFESSSIONAL PORTRA 100T / Tungsten Film. For more information, see KODAK Publication E-2468, *KODAK PROFESSIONAL PORTRA 100T Film / Tungsten.*

KODAK Pro 100T Film /PRT is a tungsten-balanced medium speed color negative film intended for advertising, architecture, corporate/industrial photography, and copy work. Pro 100T Film is designed for exposure times of 1/1,000 second to 5 seconds with tungsten illumination (3200 K). With filtration, you can exposure this film with photolamps (3400 K), daylight, or electronic flash.

FEATURES	BENEFITS
• KODAK T-GRAIN® Emulsions	• High sharpness • Fine grain
• Superb color accuracy	• Excellent color response under tungsten illumination • Clean neutrals
• Slightly lower overall contrast	• Good reproduction of shadow detail
• Batch-to-batch emulsion consistency	• Consistent performance

SIZES AVAILABLE

Sizes and CAT numbers may differ from country to country. See your dealer who supplies KODAK Professional Products.

Rolls	Code	Base	CAT No.
120 (pro-pack of 5 rolls)	PRT	3.9-mil acetate	870 8927

Sheets	Size (Inches)	Code 	Base	CAT No.
10	4 x 5	PRT	7-mil ESTAR	836 6403
50	4 x 5	PRT	7-mil ESTAR	853 1907
10	5 x 7	PRT	7-mil ESTAR	893 1602
10	8 x 10	PRT	7-mil ESTAR	833 4971
10	11x 14	PRT	7-mil ESTAR	855 0360

STORAGE AND HANDLING

Store unexposed film at 55°F (13°C) or lower in the original sealed package. To avoid moisture condensation on film that has been refrigerated, allow the film to warm up to room temperature before opening the package. Typical warm-up times are given in the table below.

Size	Warm-Up Time (Hours) to Reach Room Temperature of 70°F (21°C) From a Storage Temperature of		
	0°F (–18°C)	35°F (2°C)	55°F (13°C)
Roll	1	¾	½
10-sheet box	1 ½	1	1
50-sheet box	3	2	2

Load and unload roll-film cameras in subdued light. Total darkness is required when you load and unload sheet film holders.

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 the speed numbers in the table below with cameras or meters marked for ISO, ASA, or DIN speeds or exposure indexes (EIs). Do not change the film-speed setting when metering through a filter. Metering through filters may affect light meter accuracy; see your meter or camera manual for specific information.

Light Source	KODAK Filter No.*	Exposure Time (seconds)	Exposure Index (EI)
Tungsten (3200 K)	None	1/1,000 to 5 10 30 60 120	100/21° 80/20° 64/19° 50/18° 40/17°
Photolamp (3400 K)	Light Balancing 81A	1/1,000 to 5	80/20°
Daylight	WRATTEN Gelatin 85B	1/1,000 to 5	64/19°
Electronic Flash	WRATTEN Gelatin 85B	—	64/19°

* For best results without special printing.

Electronic Flash

Use the appropriate guide number in the following table 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 consistently too dense (overexposed), use a higher guide number; if they are too thin (underexposed), use a lower number.

Unit Output (BCPS)*	Guide Number Distances in Feet/Metres
350	32/10
500	40/12
700	45/14
1000	55/17
1400	65/20
2000	80/24
2800	95/29
4000	110/33
5600	130/40
8000	160/50

* BCPS = beam candlepower seconds

PROCESSING

Process Pro 100T Film in KODAK FLEXICOLOR Chemicals for Process C-41. For more information, see KODAK Publication No. Z-131, *Using KODAK FLEXICOLOR Chemicals.*

JUDGING NEGATIVE EXPOSURE

You can check the exposure level with a suitable electronic densitometer equipped with a filter such as a KODAK WRATTEN Gelatin Filter No. 92 or the red filter for Status M densitometry. 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.

Because of the extreme range in skin color, use these red density values for a normally lighted forehead only as a guide. For best results, use a *KODAK Gray Card* (gray side).

Area Measured	Density Reading
KODAK Gray Card (gray side), receiving same illumination as subject	0.85 to 1.05
Lightest step (darkest in negative) of *KODAK Paper Gray Scale* receiving same illumination as subject	1.20 to 1.40
Highest diffuse density on normally lighted forehead —light complexion —dark complexion	 1.10 to 1.40 0.95 to 1.30

RETOUCHING

You can retouch this film on the base and the emulsion sides.

For information on retouching equipment, supplies, and techniques, see KODAK Publication No. E-71, *Retouching Color Negatives.*

PRINTING NEGATIVES

You can make color prints by contact printing or enlarging on KODAK PROFESSIONAL PORTRA, SUPRA, and ULTRA Papers or KODAK DURAFLEX® RA Print Material.

Make color transparencies or slides directly onto KODAK VERICOLOR Print Film, KODAK VERICOLOR Slide Film, or KODAK DURATRANS® RA or DURACLEAR™ RA Display Material.

Make black-and-white prints on KODAK PANALURE SELECT RC Paper for conventional black-and-white processing, or KODAK EKTAMAX RA Professional Paper for Process RA-4.

SCANNING NEGATIVES

You can easily scan Pro 100T Film negatives with a variety of linear-array-CCD, area-array-CCD, and PMT film scanners. You can scan negatives on desk-top scanners as well as high-end drum scanners.

Because no standards exist to define the colored filter sets that film scanners use to capture the red, green, and blue information of the film image, each manufacturer's scanner has its own characteristic output. The output depends on the scanner's sensitivity to the dyes in the film. This sensitivity is determined by the spectral distribution of the colored filter sets and/or the spectral sensitivity of the charge-coupled device (CCD). In addition to these spectral specifications, scanner output depends on the look-up tables or matrices that the scanner uses to output information for CRT monitors, transmission, etc. These tables or matrices are part of either "plug-in" programs used with specific software packages designed for image manipulation, updateable ROMs included with the equipment, or fixed algorithms for calibrating and balancing, similar to those used in photographic color printing equipment.

The generic "color negative film" channel designation available with scanner software is only a starting point. You can adjust the final color balance and the scene-dependent contrast and brightness of an image by using the scanner's controls during pre-scan, or by using an image-manipulation software program or workstation after acquisition.

Some scanners allow you to use "plug-in" programs to make calibrations based on D-min film stock. Because different types of color negative films have different colored-coupler masks, the optimum D-min balance is different for each type of film. Therefore, for optimum results, set up a specific channel for each type of film you are scanning.

Note: For more information, visit our web site at **www.kodak.com/go/professional.**

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 of 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.

Negative Size: 6 x 6 cm (Size 120)

Print Size (inches)	4 x 6	8 x 10	16 x 20
Magnification	2.6X	4.4X	8.8X
Print Grain Index	Less than 25	35	58

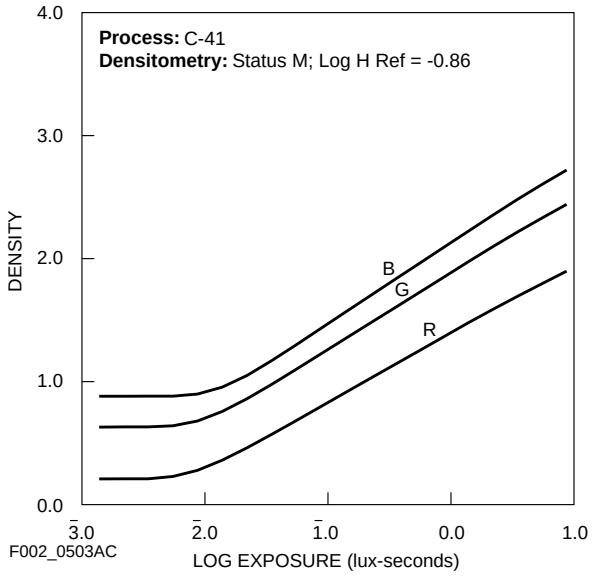
Negative Size: 4 x 5 Inches (Sheets)

Print Size (inches)	4 x 6	8 x 10	16 x 20
Magnification	1.2X	2.1X	4.2X
Print Grain Index	Less than 25	Less than 25	33

For more information, see KODAK Publication No. E-58, *Print Grain Index—An Assessment of Print Graininess from Color Negative Films.*

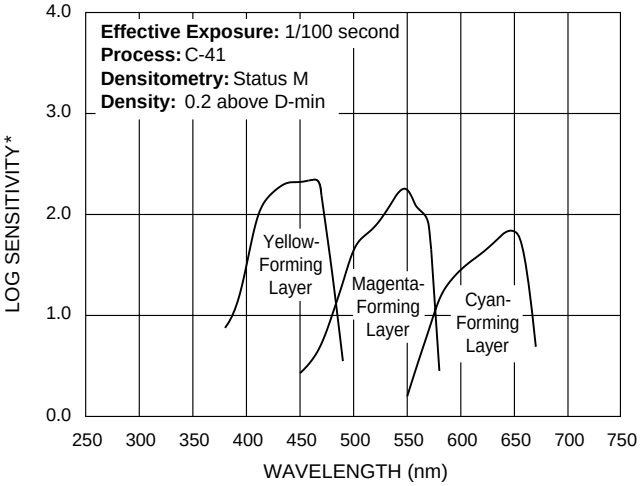
CURVES

Characteristic Curves



F002_0503AC

Spectral-Sensitivity Curves



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

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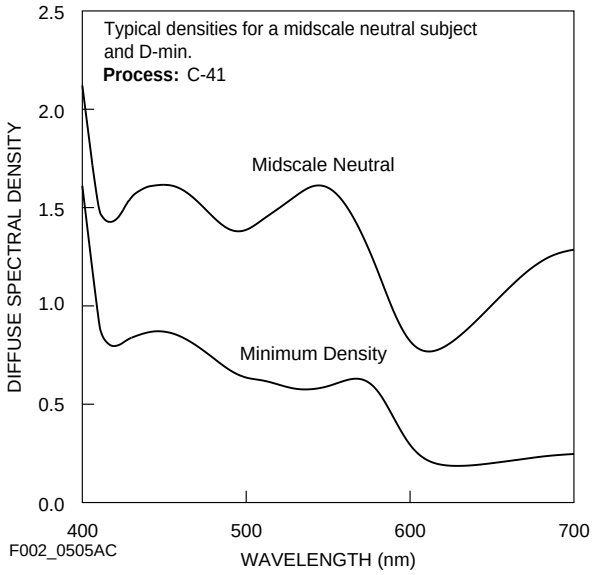
Spectral-Dye-Density Curves



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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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