

FILM

INFORMATION FROM KODAK

F-25

Kodak T-MAX Professional Films

KODAK T-MAX 100 Professional Film is a continuous-tone panchromatic black-and-white negative film for general outdoor and indoor photography; it is especially useful for detailed subjects when you need maximum image quality. It is excellent for copying black-and-white photographs, for making black-and-white prints from color transparencies, and for photomicrography. This film features medium speed (EI 100), extremely high sharpness, extremely fine grain, and very high resolving power. It allows a very high degree of enlargement.

KODAK T-MAX 400 Professional Film is a panchromatic black-and-white negative film especially useful for photographing dimly lighted subjects or fast action, for extending the distance range for flash pictures, and for photographing subjects that require good depth of field and fast shutter speeds with maximum image quality for the film speed. It is also useful for scientific and biomedical work, especially when fluorescence photography is required. It has high speed (EI 400), very high sharpness, extremely fine grain, and high resolving power; it allows a high degree of enlargement. You can expose it at a speed of EI 800 with normal processing, or at EI 1600 with push processing to obtain excellent results with many types of scenes and subjects. You can also obtain good-quality prints by exposing it at EI 3200 and push-processing it in KODAK T-MAX Developer when you need extremely high speed.

FEATURES	BENEFITS
<ul style="list-style-type: none"> • KODAK T-GRAIN Emulsion that reshapes pebble-like crystals into a tabular form with more surface to catch light 	<ul style="list-style-type: none"> • Films with extremely fine grain can now be made faster; high-speed films can now have finer grain. T-MAX Films offer the best of both worlds: high speed and fine grain.
<ul style="list-style-type: none"> • Improved sharpness 	<ul style="list-style-type: none"> • Maintains finite detail in prints at higher degrees of magnification than conventional films.
<ul style="list-style-type: none"> • More responsive to zone-system development changes 	<ul style="list-style-type: none"> • Smaller time adjustments needed.

FEATURES	BENEFITS
<ul style="list-style-type: none"> • Expanded exposure latitude 	<ul style="list-style-type: none"> • Greater "forgiveness" with overexposure errors; quality prints from moderately under- or overexposed negatives. • Better highlight separation.
<ul style="list-style-type: none"> • No increase in processing time required for one-stop "push" 	<ul style="list-style-type: none"> • No need to segregate one-stop pushed film from normally exposed film. You can mix normal exposures and one-stop pushed exposures on the same roll.
<ul style="list-style-type: none"> • Less development-time increase required for two or more stops push than with conventional films 	<ul style="list-style-type: none"> • Saves you processing time.
<ul style="list-style-type: none"> • Processed in standard developers or in KODAK T-MAX Developer 	<ul style="list-style-type: none"> • No need for a special developer. You can process T-MAX Films with other black-and-white films.
<ul style="list-style-type: none"> • Improved reciprocity with both long and short exposure times 	<ul style="list-style-type: none"> • Less compensation required than with conventional films.
<ul style="list-style-type: none"> • 120-size film coated on a thicker base than other black-and-white roll films 	<ul style="list-style-type: none"> • Improved dimensional stability; easier darkroom handling.
<ul style="list-style-type: none"> • T-MAX 100 Film excellent for use in copy applications with normal exposure and processing 	<ul style="list-style-type: none"> • No need for contrast adjustment or special processing.
<ul style="list-style-type: none"> • Virtually no difference between the daylight and tungsten film speeds 	<ul style="list-style-type: none"> • No need to adjust exposure for different illuminants.



INCLUDES INFORMATION
ON KODAK T-MAX
DEVELOPER

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KODAK T-MAX DEVELOPER

KODAK T-MAX Developer is a new liquid film developer that offers improved shadow detail in both normally processed and push-processed films. It produces higher image quality than current popular push-processing developers when you process film normally or push it two or three stops. KODAK T-MAX 400 Film processed in T-MAX Developer has finer grain than KODAK TRI-X Pan Film developed in KODAK Developer D-76. You can use T-MAX Developer to process T-MAX Films, as well as TRI-X Pan and KODAK PLUS-X Pan Films, to various exposure indexes.

T-MAX Developer is available in convenient sizes to make one gallon and five gallons of working solution. You can easily mix smaller volumes by mixing one part of the concentrate with four parts water.

FEATURES	BENEFITS
• Liquid concentrate	• Easy mixing.
• Concentrate mix ratio 1:4	• Mix any amount you need.
• Better tone reproduction	• Improved shadow detail.
• Ideal for small tanks and rotary-tube processors	• Excellent process uniformity.
• Excellent storage characteristics for concentrate and working solution	• Longer solution life.
• KODAK T-MAX Developer works well with normally exposed film as well as film pushed by 1, 2, or 3 stops	• One developer for normal and push processing.

Storage

You can store working-strength solution in a full, tightly closed bottle for 6 months, in a half-filled bottle for 2 months, or in a covered tank for 1 month. You can store the concentrate for 2 years or longer.

Capacity

The capacity of this developer with KODAK T-MAX Professional Films (with normal processing) is 48 rolls of 135-36 or 120 film per gallon (or equivalent), with time compensation. Capacity is lower when you use the developer for push-processing.

Time Compensation

To process the maximum number of rolls of T-MAX Film per gallon of developer, use time compensation according to the table below.

Film Size	Roll No.	Development-Time Increase
135-36	1 to 16	Use normal development time
135-36	17 to 32	Normal development time + 1 minute
135-36	33 to 48*	Normal development time + 2 minutes

*Discard the developer after you process 48 rolls of film.

DARKROOM RECOMMENDATIONS

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

STORAGE AND HANDLING

Store unexposed film at 75°F (24°C) or lower in the original sealed package. For protection from heat in areas with temperatures consistently higher than 75°F (24°C), you can store the film in a refrigerator. If film has been refrigerated, allow the package to warm up to room temperature for 2 to 3 hours before opening it.

Load and unload roll-film cameras in subdued light, and rewind the film completely before unloading the camera. For best results, process the film promptly after exposure.

Total darkness is required when you remove the film from the magazine or load and unload film holders.

Store processed film in a cool, dry place.

EXPOSURE

The nominal speed for KODAK T-MAX 100 Professional Film is EI 100. Exposing the film at this speed should usually lead to the minimum exposure required to produce negatives of very high quality. (See the table at the right.) This film has good latitude and responds well to changes in development time. For consistent results, use the rated speed or make tests to determine a speed rating that meets your needs. For information on methods of determining your best exposure and developer combination, see KODAK Publication No. F-5, *KODAK Professional Black-and-White Films*.

The nominal speed for KODAK T-MAX 400 Professional Film is EI 400. Because of its great latitude, you can underexpose the film by one stop (EI 800) and still obtain high quality with normal development. There will be no change in the grain in the final print, but there will be a slight loss of shadow detail.

When you need very high speed, you can expose KODAK T-MAX 400 Professional Film at EI 1600 and increase the development time. With the longer development time, there will be an increase in contrast and graininess with additional loss of shadow detail, but negatives will still produce good prints. You can even expose this film at EI 3200 with a longer development time. Underexposing by three stops and using three-stop push processing produces a further increase in contrast and graininess and additional loss of shadow detail, but the results will be acceptable for many applications.

The speed numbers for these films are expressed as Exposure Indexes (EI). They were determined in a manner published in ISO standards. Use these exposure indexes with meters or cameras marked for ISO/ASA or ISO°/DIN speeds in daylight or artificial light.

The developer you use to process this film affects the exposure index. Set your camera or meter (marked for ISO/ASA or ISO°/DIN speeds) at the speed given for your developer in the table.

Exposure Index (EI)		
KODAK Developer	T-MAX 100 Film	T-MAX 400 Film
T-MAX	100/21°	400/27°
D-76	100/21°	400/27°
D-76 (1:1)	100/21°	400/27°
HC-110 (Dil B)	100/21°	320/26°
MICRODOL-X	50/18°	200/24°
MICRODOL-X (1:3)	100/21°	320/26°
DURAFLO RT	80/20°	400/27°

Note: The developers and exposure indexes in **bold type** are the primary recommendations.

Under most conditions, you'll obtain highest quality with normal exposure at the rated exposure index and with normal development. For high-contrast scenes, you'll obtain highest quality when you use one or two stops more exposure and process the film normally.

If normal development produces negatives that are consistently too low in contrast, increase the development time slightly (10 to 15 percent). If negatives are too contrasty, decrease the development time slightly (10 to 15 percent). See "Adjusting Film Contrast" on page 9.

If your negatives are too light, increase exposure by using a lower speed number; if too dark, reduce exposure by using a higher speed number.

Pushing Exposure* with KODAK T-MAX Developer

KODAK Film	1-Stop Push	2-Stop Push	3-Stop Push†
T-MAX 100 Professional	EI 200/24° Normal Processing	EI 400/27° 2-Stop Push Processing	EI 800/30° 3-Stop Push Processing
T-MAX 400 Professional	EI 800/30° Normal Processing	EI 1600/33° 2-Stop Push Processing	EI 3200/36° 3-Stop Push Processing

Note: See page 6 for processing times.

*Pushing exposure results in slight losses of quality compared with normal exposure and normal processing. You can also use other Kodak developers for pushing these films; however, T-MAX Developer produces higher-quality tone reproduction (better shadow detail) under these conditions.

For high-contrast scenes, such as spotlighted performers under harsh lighting, expose and process as indicated in the table. However, when detail in the deep-shadow areas is important to the scene, overexpose by 2 stops and process your film normally.

†Pushing exposure and processing by 3 stops increases contrast and graininess and decreases shadow detail further. Expose and process a test roll to determine if the results are acceptable for your needs.

Filter Corrections

The filter corrections for T-MAX 100 and T-MAX 400 Professional Films are the same.

Increase exposure by the number of stops indicated when you use filters. For greatest exposure accuracy with a through-the-lens meter, take the meter reading without the filter over the lens, and then increase your exposure as shown in the table.

KODAK WRATTEN Gelatin Filter	Daylight			Tungsten		
	Increase the lens aperture by (<i>f</i> -stops)	OR	Increase the exposure by (filter factor)	Increase the lens aperture by (<i>f</i> -stops)	OR	Increase the exposure by (filter factor)
No. 6 (light yellow)	$\frac{2}{3}$		1.5	$\frac{1}{3}$		1.2
No. 8 (yellow)	$\frac{2}{3}$		1.5	$\frac{1}{3}$		1.2
No. 11 (yellowish green)	$1\frac{2}{3}$		3	$1\frac{2}{3}$		3
No. 12 (deep yellow)	1		2	$\frac{1}{3}$		1.2
No. 15 (deep yellow)	1		2	$\frac{2}{3}$		1.5
No. 25 (red)	3		8	2		4
No. 47 (blue)	3		8	$4\frac{2}{3}$		25
No. 58 (green)	$2\frac{2}{3}$		6	$2\frac{2}{3}$		6
Polarizing Filter	$1\frac{1}{3}$		2.5	$1\frac{1}{3}$		2.5

Adjustments for Long and Short Exposures

At the exposure times in the table below, compensate for the reciprocity characteristics of this film by increasing the exposure as shown. The uniformity of results is very good with short exposures and excellent with long exposures.

If Indicated Exposure Time Is (seconds)	KODAK T-MAX 100 Professional Film		KODAK T-MAX 400 Professional Film	
	Use This Lens- Aperture Adjustment	OR This Exposure- Time Adjustment (seconds)	Use This Lens- Aperture Adjustment	OR This Exposure- Time Adjustment (seconds)
1/10,000	+ $\frac{1}{3}$ stop	Change aperture	None	None
1/1000	None	None	None	None
1/100	None	None	None	None
1/10	None	None	None	None
1	+ $\frac{1}{3}$ stop	Change aperture	+ $\frac{1}{3}$ stop	Change aperture
10	+ $\frac{1}{2}$ stop	15	+ $\frac{1}{2}$ stop	15
100	+ 1 stop	200	+ $1\frac{1}{2}$ stops	300

PROCESSING

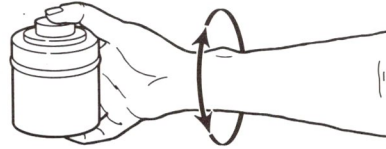
Handle unprocessed film in total darkness.

These starting-point recommendations are intended to produce a contrast index of 0.56 (for T-MAX 100 Professional Film) and 0.60 (for T-MAX 400 Professional Film). These development times will produce negatives with a contrast index appropriate for printing with a diffusion enlarger. To adjust contrast for printing with a condenser enlarger, see "Adjusting Film Contrast" on page 9. Tank-development times shorter than 5 minutes may produce unsatisfactory uniformity.

Small-Tank Processing—Roll Film (8- or 16-ounce tank)

Agitate once per 30 seconds.

For optimum uniformity with small single- or double-reel tanks, drop the loaded film reel into the developer and attach the top to the tank. Firmly tap the tank on the top of the work surface to dislodge any air bubbles. Provide initial agitation of 5 to 7 inversion cycles in 5 seconds, i.e., extend your arm and vigorously twist your wrist 180 degrees as shown at the right.



Then repeat this agitation procedure at 30-second intervals for the rest of the development time.

KODAK Developer	KODAK T-MAX 100 Professional Film					KODAK T-MAX 400 Professional Film				
	Development Time in Minutes					Development Time in Minutes				
	65°F (18°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)	65°F (18°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)
T-MAX	NR	8	7½	7	6½	NR	7	6½	6½	6
D-76	10½	9	8	7	6	9	8	7	6½	5½
D-76 (1:1)	14½	12	11	10	8½	14½	12½	11	10	9
HC-110 (Dil B)	8	7	6½	6	5	6½	6	5½	5	4½
MICRODOL-X	16	13½	12	10½	8½	12	10½	9	8½	7½
MICRODOL-X (1:3)	NR	NR	20	18½	16	NR	NR	20	18½	16

Small-Tank Processing—Roll Film (20-ounce tank)

Agitate once per minute.

KODAK Developer	KODAK T-MAX 100 Professional Film		KODAK T-MAX 400 Professional Film	
	T-MAX	D-76	T-MAX	D-76
Temperature	75°F (24°C)		68°F (20°C)	
Time in Minutes	7½		10	
			7	
			9	

Large-Tank Processing—Roll Film

Agitate once per minute throughout the development time.

KODAK Developer	KODAK T-MAX 100 Professional Film					KODAK T-MAX 400 Professional Film				
	Development Time in Minutes					Development Time in Minutes				
	65°F (18°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)	65°F (18°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)
T-MAX	NR	8	7½	7	6½	NR	7	6½	6½	6
D-76	11½	10	9	8	6½	10	9	8	7½	6½
HC-110 (Dil B)	8½	7½	7	6½	5½	8	7	6½	6	5
MICRODOL-X	16	13½	12	11	9	13	11½	10	9	8

NR = Not recommended

Note: The development times in **bold type** are the primary recommendations.

Rotary-Tube Processors—Roll Film

KODAK Developer	KODAK T-MAX 100 Professional Film				KODAK T-MAX 400 Professional Film			
	Development Time in Minutes				Development Time in Minutes			
	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)
T-MAX	6½	6½	6	5½	6½	6½	6	5½
D-76	6½	6	5½	5	7	6½	6	5½
HC-110 (Dil B)	6½	6	5½	4½	6	5½	5	5

Tray Processing—Sheet Film

Provide continuous agitation.

KODAK Developer	KODAK T-MAX 100 Professional Film					KODAK T-MAX 400 Professional Film				
	Development Time in Minutes					Development Time in Minutes				
	65°F (18°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)	65°F (18°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)
D-76	9½	7	6½	5½	5	9½	7	6½	6	5½
HC-110 (Dil B)	8½	7½	7	6½	5½	9	7½	7	6½	6

Large-Tank Processing—Sheet Film

Agitate once per minute.

KODAK Developer	KODAK T-MAX 100 Professional Film					KODAK T-MAX 400 Professional Film				
	Development Time in Minutes					Development Time in Minutes				
	65°F (18°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)	65°F (18°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)
D-76	11½	9½	8½	7½	7	11	10	9	8	7
HC-110 (Dil B)	11½	9½	8½	7½	7	10	8½	7½	7	6½

NR = Not recommended

Note: The development times in **bold type** are the primary recommendations.

Processing Pushed KODAK T-MAX Professional Films—Rolls

To push-process rolls in a small tank—Use the agitation procedure described under “Small-Tank Processing” on page 5. See the table on page 3 for exposure indexes and type of processing recommended.

KODAK Developer	KODAK T-MAX 100 Professional Film					KODAK T-MAX 400 Professional Film				
	Development Time in Minutes					Development Time in Minutes				
	EI 200 (Normal Processing)		EI 400 (2-Stop Push Processing)		EI 800 (3-Stop Push Processing)	EI 800* (Normal Processing)		EI 1600† (2-Stop Push Processing)		EI 3200 (3-Stop Push Processing)
	68°F (20°C)	75°F (24°C)	68°F (20°C)	75°F (24°C)	75°F (24°C)	68°F (20°C)	75°F (24°C)	68°F (20°C)	75°F (24°C)	75°F (24°C)
T-MAX	8	6½	12	9	10½	7	6	10	8	9½
D-76	9	6	11	7½	NR	8	5½	10½	7	NR
HC-110 (Dil B)	7	5	9½	6½	NR	6	4½	8½	6	NR

*If you use HC-110 Developer (Dil B), rate the film at EI 640.

†If you use HC-110 Developer (Dil B), rate the film at EI 1280.

NR = Not recommended

Note: The development times in **bold type** are the primary recommendations.

To push-process rolls in a rotary-tube processor—

KODAK Developer	KODAK T-MAX 100 Professional Film									
	Development Time in Minutes									
	EI 200 (Normal Processing)				EI 400 (2-Stop Push Processing)				EI 800 (3-Stop Push Processing)	
	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)	72°F (22°C)	75°F (24°C)
T-MAX	6½	6½	6	5½	10½	10	9	9	14	12½
D-76	6½	6	5½	5	9	8½	8	7	NR	NR
HC-110 (Dil B)	6½	6	5½	4½	11	10	9	8	NR	NR

KODAK Developer	KODAK T-MAX 400 Professional Film											
	Development Time in Minutes											
	EI 800* (Normal Processing)				EI 1600† (2-Stop Push Processing)				EI 3200 (3-Stop Push Processing)			
	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)	68°F (20°C)	70°F (21°C)	72°F (22°C)	75°F (24°C)
T-MAX	6½	6½	6	5½	8½	8	7½	7	11	10½	10	9½
D-76	7	6½	6	5½	9	8½	8	7	NR	NR	NR	NR
HC-110 (Dil B)	6	5½	5	5	8½	8	7½	7	NR	NR	NR	NR

*If you use HC-110 Developer (Dil B), rate the film at EI 640.

†If you use HC-110 Developer (Dil B), rate the film at EI 1280.

NR = Not recommended

Note: The development times in **bold type** are the primary recommendations.

Final Steps in Tray, Tank, and Rotary-Tube Processing

Rinse at 65 to 75°F (18 to 24°C) with agitation in KODAK Indicator Stop Bath, KODAK Stop Bath SB-5, or running water for 30 seconds.

Fix at 65 to 75°F (18 to 24°C) for 3 to 5 minutes with vigorous agitation in KODAK Rapid Fixer. Be sure to agitate the film frequently during the fixing time.

Note: To keep fixing times as short as possible, we strongly recommend using KODAK Rapid Fixer. If you use another fixer, such as KODAK Fixer or KODAFIX Solution, fix for 5 to 10 minutes or twice the time it takes for the film to clear.

Important: Your fixer will be exhausted more rapidly with these films than with other films. If your negatives show a magenta (pink) stain after fixing, your fixer may be near exhaustion, or you may not have used a long enough time. If the stain is slight, it will not affect negative contrast or printing times. If it is pronounced and irregular over the film surface, refix the film in fresh fixer.

Wash for 20 to 30 minutes in running water at 65 to 75°F (18 to 24°C) with a flow rate that provides at least one complete change of water in 5 minutes. Wash long rolls on the processing reel. To save time and conserve water, use KODAK Hypo Clearing Agent.

Dry film in a dust-free place. To minimize drying marks, treat the film with KODAK PHOTO-FLO Solution after washing, or wipe the surfaces carefully with a KODAK Photo Chamois or soft viscose sponge.

ADJUSTING FILM CONTRAST

If you want to increase or decrease film contrast from its normal value, or if you want to use a different developer temperature, find the adjustment factor in one of the following tables; multiply the standard development time by this factor. The standard development time is the development time that produces normal contrast at the primary recommended temperature for the developer (68°F [20°C] or 75°F [24°C]). The adjustment factor for this standard time is **1.0** as indicated in the tables.

Multiplying the standard development time by any adjustment factor from the table gives the development time to use for a different contrast or developer temperature (or both).

Note: These tables apply to negatives you will print with a diffusion enlarger. If you will print negatives in a condenser enlarger, shift your selection one column to the left.

For KODAK Developer D-76 and MICRODOL-X Developer				
Temperature	20% Less Contrast	Normal Contrast	20% More Contrast	40% More Contrast
65°F (18°C)	1.0*	1.2	1.4	1.6
68°F (20°C)	0.8*	1.0	1.2	1.4
70°F (21°C)	0.7*	0.9	1.1	1.3
72°F (22°C)	0.7*	0.8	1.0	1.2
75°F (24°C)	0.6*	0.7	0.9	1.0

For KODAK HC-110 Developer (Dil B)				
Temperature	20% Less Contrast	Normal Contrast	20% More Contrast	40% More Contrast
65°F (18°C)	0.7*	1.2	1.6	2.1
68°F (20°C)	0.6*	1.0	1.4	1.8
70°F (21°C)	0.6*	0.9	1.3	1.6
72°F (22°C)	0.5*	0.8	1.2	1.5
75°F (24°C)	0.4*	0.7	1.0	1.3

For KODAK T-MAX Developer				
Temperature	20% Less Contrast	Normal Contrast	20% More Contrast	40% More Contrast
68°F (20°C)	0.9*	1.2	1.4	NR
72°F (22°C)	0.8*	1.1	1.3	1.7
75°F (24°C)	0.7*	1.0	1.2	1.5

For KODAK MICRODOL-X Developer (1:3)				
Temperature	20% Less Contrast	Normal Contrast	20% More Contrast	40% More Contrast
75°F (24°C)	0.8*	1.0	1.3	1.5

*If you select one of these factors, increase camera exposure by one stop.
NR = Not recommended

RETOUCHING

You can retouch KODAK T-MAX Professional Films in the 120 and sheet sizes by applying liquid dyes to the base or emulsion side. You can also use retouching pencil on the base side after applying KODAK Retouching Fluid.

IMAGE-STRUCTURE CHARACTERISTICS

The data in this section are based on development at 68°F (20°C) in KODAK Developer D-76.

KODAK T-MAX 100 Professional Film

Diffuse RMS Granularity* 8

Resolving Power†	TOC 1.6:1	63 lines/mm
	TOC 1000:1	200 lines/mm

KODAK T-MAX 400 Professional Film

Diffuse RMS Granularity* 10

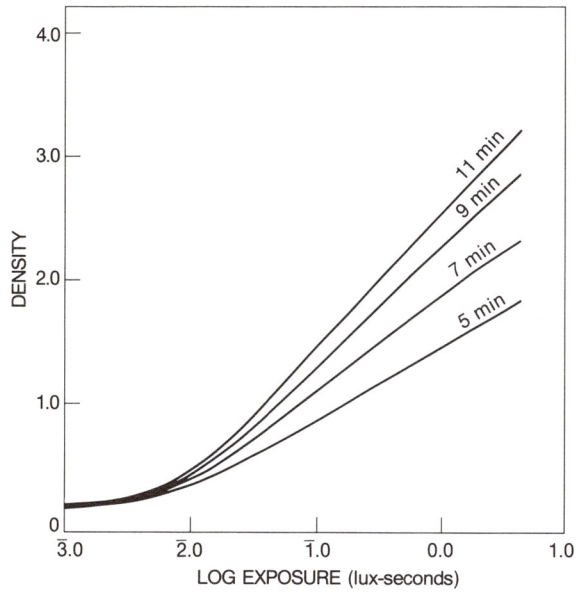
Resolving Power†	TOC 1.6:1	50 lines/mm
	TOC 1000:1	125 lines/mm

*Read at a net diffuse density of 1.00, using a 48-micrometre aperture, 12X magnification.

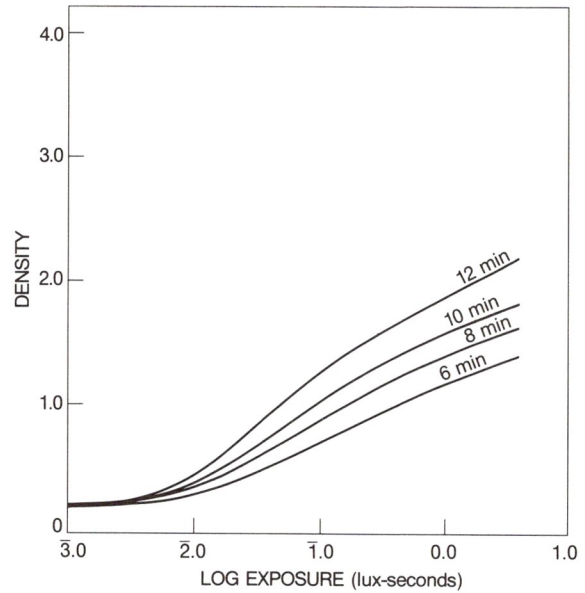
†Determined according to a method similar to the one described in ISO 6328, *Photography—Determination of ISO Resolving Power*.

Characteristic Curves

KODAK T-MAX 100 Professional Film / 5052

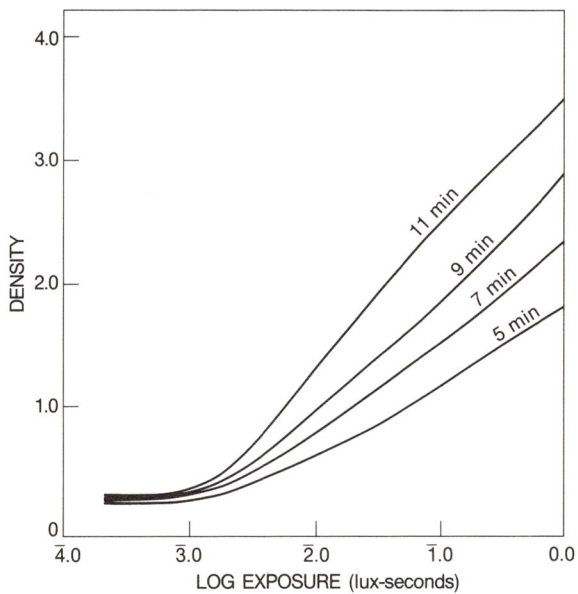


Exposure: Daylight
Process: KODAK T-MAX Developer, small tank, 75°F (24°C)
Densitometry: Diffuse visual

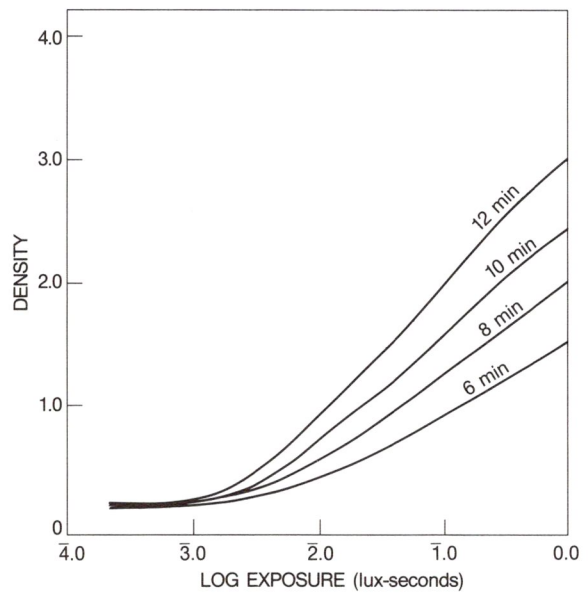


Exposure: Daylight
Process: KODAK Developer D-76, small tank, 68°F (20°C)
Densitometry: Diffuse visual

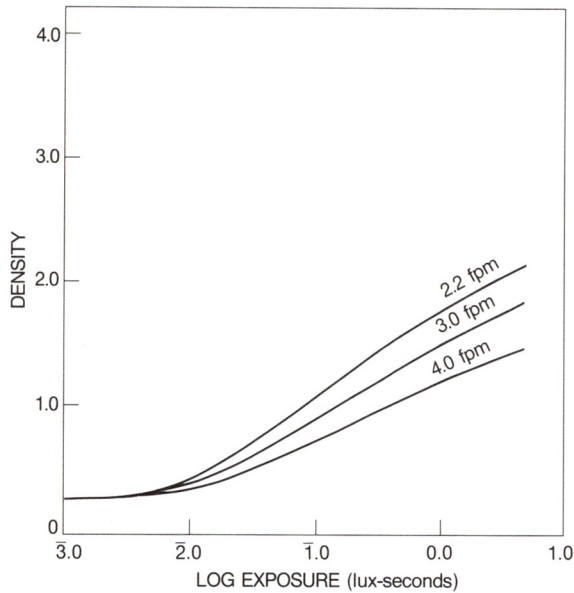
KODAK T-MAX 400 Professional Film / 5053



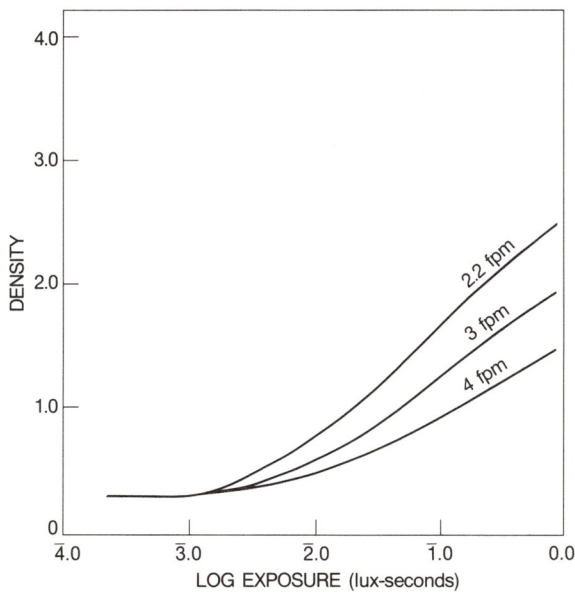
Exposure: Daylight
Process: KODAK T-MAX Developer, small tank, 75°F (24°C)
Densitometry: Diffuse visual



Exposure: Daylight
Process: KODAK Developer D-76, small tank, 68°F (20°C)
Densitometry: Diffuse visual



Exposure: Daylight
Process: KODAK DURAFLO RT Developer Replenisher and Starter, KODAK VERSAMAT Film Processor, Model 5

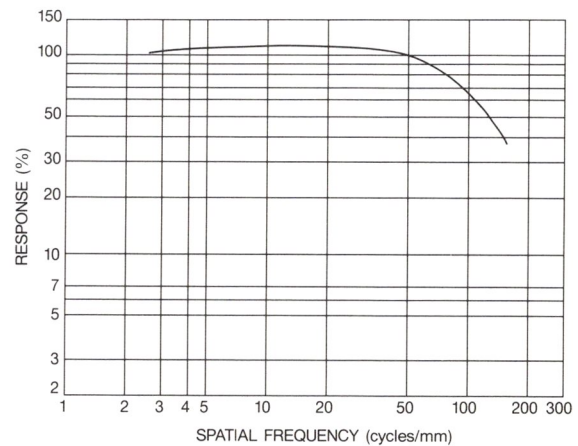


Exposure: Daylight
Process: KODAK DURAFLO RT Developer Replenisher and Starter, KODAK VERSAMAT Film Processor, Model 5

Modulation-Transfer Function

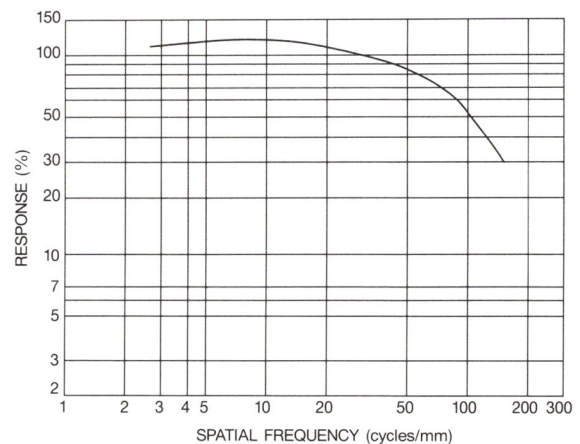
These photographic modulation-transfer values were determined by using a method similar to that described in ANSI Standard PH2.39-1977 (R1984). The film was exposed with the specified illuminant to spatially varying sinusoidal test patterns with an aerial image modulation of a nominal 35 percent at the image plane, with processing as indicated. In most cases, these photographic modulation-transfer values are influenced by photographic adjacency effects, and are not equivalent to the true optical modulation-transfer curve of the emulsion layer in the particular photographic product.

KODAK T-MAX 100 Professional Film / 5052



Exposure: Tungsten
Process: KODAK Developer D-76, small tank, 68°F (20°C)
Densitometry: Diffuse visual

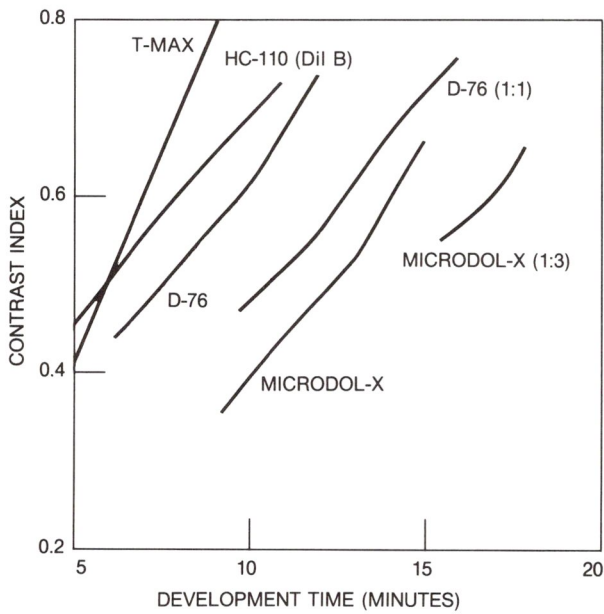
KODAK T-MAX 400 Professional Film / 5053



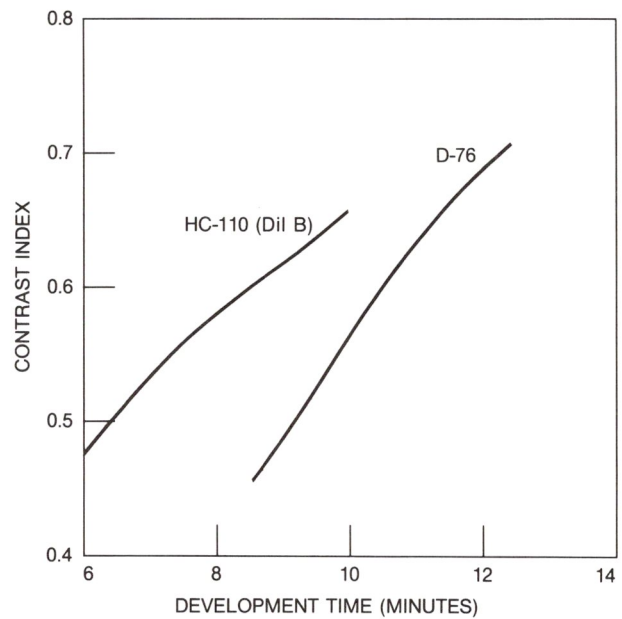
Exposure: Tungsten
Process: KODAK Developer D-76, small tank, 68°F (20°C)
Densitometry: Diffuse visual

Contrast-Index Curves

KODAK T-MAX 100 Professional Film / 5052

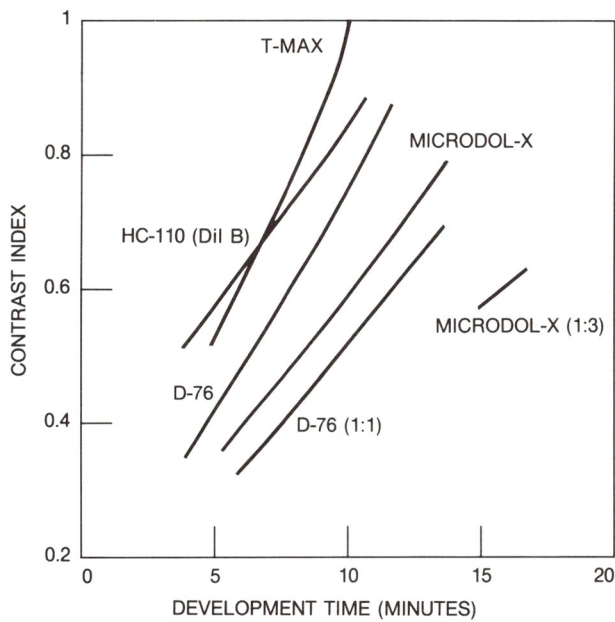


Process: Small Tank; KODAK HC-110 Developer (Dil B), 68°F (20°C)
 KODAK Developer D-76, 68°F (20°C)
 KODAK Developer D-76 (1:1), 68°F (20°C)
 KODAK MICRODOL-X Developer, 68°F (20°C)
 KODAK T-MAX Developer, 75°F (24°C)
 KODAK MICRODOL-X Developer (1:3), 75°F (24°C)

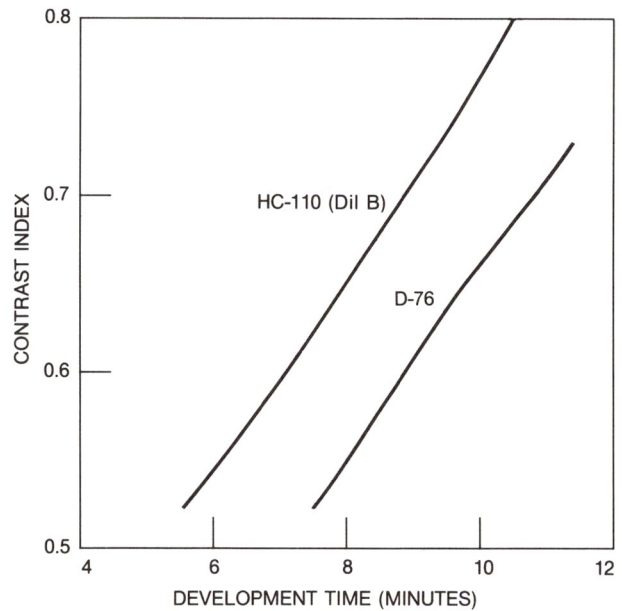


Process: KODAK HC-110 Developer (Dil B),
 KODAK Developer D-76, large tank, 68°F (20°C)

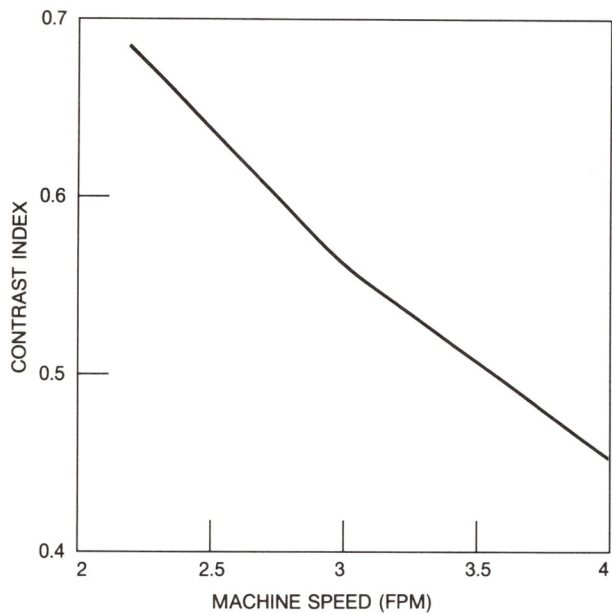
KODAK T-MAX 400 Professional Film / 5053



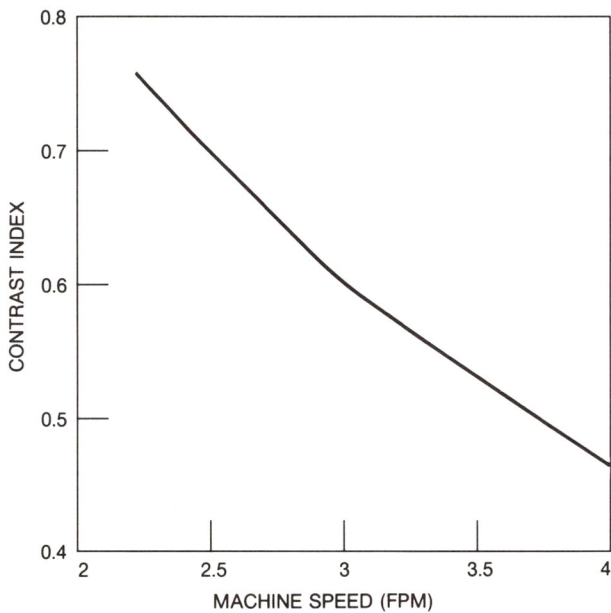
Process: Small Tank; KODAK HC-110 Developer (Dil B), 68°F (20°C)
 KODAK Developer D-76, 68°F (20°C)
 KODAK Developer D-76 (1:1), 68°F (20°C)
 KODAK MICRODOL-X Developer, 68°F (20°C)
 KODAK T-MAX Developer, 75°F (24°C)
 KODAK MICRODOL-X Developer (1:3), 75°F (24°C)



Process: KODAK HC-110 Developer (Dil B),
 KODAK Developer D-76, large tank, 68°F (20°C)



Process: KODAK DURAFLO RT Developer Replenisher and Starter;
KODAK VERSAMAT Film Processor, Model 5

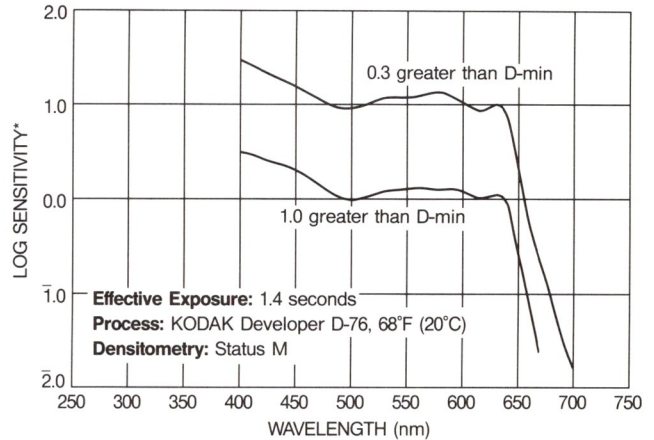


Process: KODAK DURAFLO RT Developer Replenisher and Starter;
KODAK VERSAMAT Film Processor, Model 5

Spectral-Sensitivity Curves

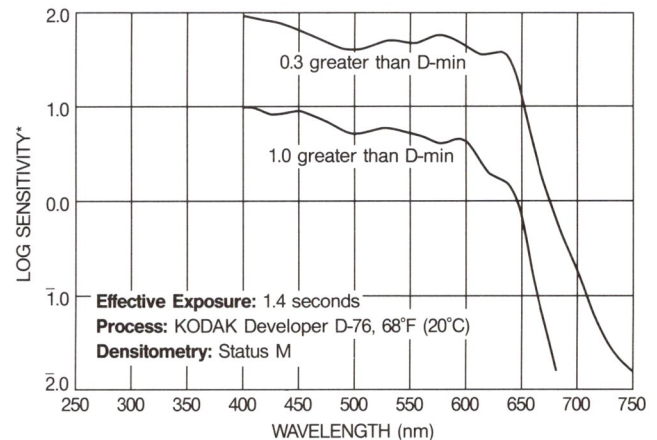
The blue sensitivity of KODAK T-MAX 100 and 400 Professional Films is slightly less than that of other Kodak black-and-white films. This enables the response of these films to be closer to the response of the human eye. Therefore, blues may be recorded as slightly darker tones with these films—a more natural rendition.

KODAK T-MAX 100 Professional Film / 5052



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

KODAK T-MAX 400 Professional Film / 5053



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

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.

SIZES AVAILABLE

KODAK T-MAX 100 Professional Film

Rolls	Film Code	Base	CAT No.
135-24 135-36	5052	5-mil acetate	135 8787 156 2537
35 mm x 100 ft (Sp 402) 35 mm x 100 ft (Sp 417)	5052	5-mil acetate	120 8966 126 2716
120 120 pro-pack (5 rolls)	6052	5.2-mil acetate	828 9589 807 9725

Sheets	Size (inches)	Film Code	Base	CAT No.
25 100	4 x 5	4052	7-mil ESTAR Thick	802 0737 805 0221
100	5 x 7	4052	7-mil ESTAR Thick	178 3737
25	8 x 10	4052	7-mil ESTAR Thick	805 0890

KODAK T-MAX 400 Professional Film

Rolls	Film Code	Base	CAT No.
135-24 135-36 135-36 pro-pack 50 (6 cartons of 50 rolls)	5053	5-mil acetate	122 2538 139 7538 186 5039
35 mm x 100 ft (Sp 402) 35 mm x 100 ft (Sp 417)	5053	5-mil acetate	158 7716 140 5216
120 120 pro-pack (5 rolls)	6053	5.2-mil acetate	829 0389 804 7821

Sheets	Size (inches)	Film Code	Base	CAT No.
25 100	4 x 5	4053	7-mil ESTAR Thick	818 2016 804 5924
100	5 x 7	4053	7-mil ESTAR Thick	109 6676
25	8 x 10	4053	7-mil ESTAR Thick	800 0929

KODAK T-MAX Developer

CAT No.

To make 1 gallon	140 2767
To make 5 gallons.	159 9844

These catalog numbers apply to products sold in the United States. Numbers may be different in other countries. For more information, contact Kodak in your country.

MORE INFORMATION

Kodak has many publications to assist you with information on Kodak products, equipment, and methods. The following publications are available from dealers who sell Kodak products, or you can order them directly from Kodak through the order form in KODAK Publication No. L-1, *KODAK Index to Photographic Information*. To obtain a copy of L-1, send your request with \$1 to Eastman Kodak Company, Dept. 412-L, Rochester, New York 14650.

- F-5 *KODAK Professional Black-and-White Films*
- G-1 *Quality Enlarging with KODAK B/W Papers*
- G-4 *Understanding Black-and-White Quality*
- G-18 *Printmaking with KODAK ELITE Fine-Art Paper*
- J-1 *Black-and-White Processing Using KODAK Chemicals*
- J-24 *KODAK HC-110 Developer*
- O-10 *Retouching Black-and-White Negatives and Prints*



Professional Films

The Kodak materials described in this publication for use with KODAK T-MAX Professional Films are available from dealers who supply Kodak products. Other materials may be used, but similar results may not be obtained.

Photographic Products Group
EASTMAN KODAK COMPANY • ROCHESTER, NY 14650

