

EASTMAN Direct MP Film 5360™ / 7360™



EASTMAN Direct MP Film 5360 (35 mm) and 7360 (16 mm) is intended for making black-and-white direct reversal duplicates of black-and-white negative or positive film, or of color print films. Its primary application is in producing workprints and musical scoring prints for editing purposes. The duplicates, however, will not necessarily be of release print quality. This low-speed, orthochromatic reversal film is characterized by ultrahigh resolving power and adjustable contrast. Although it is reversal film, it should be processed in a conventional black-and-white process rather than a reversal process. The image produced has the same tonal-scale orientation as the film from which it is printed, i.e. a negative from a negative, or a positive from a positive.

BASE

This film has a clear acetate safety base.

DARKROOM RECOMMENDATIONS

Use a KODAK No. 2 Safelight Filter (dark red) or KODAK No.1 Safelight Filter (red) with a 15-watt bulb. Keep the safelight at least 1.2 metres (4 feet) from the film.

STORAGE

Store *unexposed* film at 13°C (55°F) or below. Process *exposed* film promptly. Store *processed* film at 25°C (77°F) or lower at a relative humidity of 20 to 50 percent for medium-term storage; for extended-term storage, store it at 21°C (70°F) at 20- to 30-percent relative humidity. For more information on long-term storage, see KODAK Publication No. H-23, *The Book of Film Care*.

PROCESSING

Use the following starting-point recommendations for a typical continuous-strand processing machine using KODAK Developer D-97. See KODAK Publication No. H-24, *Manual for Processing KODAK Motion Picture Films* for more information on the solution formulas and the procedures for continuous machine processing this film.

Processing Step	Temperature	Time (min:sec)	Replenishment Rate (mL per 100 ft)	
			35 mm	16 mm
KODAK Developer D-97*	21°C ± 0.3 (70°F ± 0.5)	†	650 (D-97R)	325 (D-97R)
Stop Rinse‡	21°C ± 1 (70°F ± 2)	0:50	12,000	6,000
KODAK Fixing Bath F-5*	21°C ± 1 (70°F ± 2)	6:00	600	300
Countercurrent Wash (3 stages)	21°C ± 1 (70°F ± 2)	10:00	12,000	6,000
Dry§	35°C (95°F)	—	—	—

* Agitation in the developer and fixing bath should be by recirculation through submerged spray jets that impinge on the film strands.

† Develop to recommended control gamma.

‡ Fixer-laden water from wash tank, pH about 6.

§ Drying depends on many factors such as air temperature, humidity, volume and rate of air flow, flow distribution pattern, final squeegeeing, etc. In a typical motion-picture film drying cabinet with air at about 35°C (95°F) and 40- to 50-percent relative humidity (RH), satisfactory drying will require 15 to 20 minutes. Film leaving the drying cabinet when it has reached room temperature should be at equilibrium with room air at approximately 50-percent RH.

RECOMMENDED CONTROL GAMMA

Duplication Process	Control Gamma
CONTACT	
Black-and-White Negatives	0.9 to 1.1
Black-and-White or Color Prints	1.0 to 1.2
OPTICAL	
Black-and-White Negatives	0.8 to 1.0

IDENTIFICATION

After processing, the product code numbers 5360 or 7360, emulsion and roll number identification, and EASTMAN KEYKODE Numbers are visible along the length of the film.

IMAGE STRUCTURE

The following modulation-transfer curve, rms granularity, and resolving power data were generated from samples of EASTMAN Direct MP Film exposed to tungsten light and processed in KODAK Developer D-97 at 21°C (70°F) to the recommended control gamma. For more information on image-structure characteristics, see KODAK Publication No H-1, *KODAK Motion Picture Film*.

Diffuse RMS Granularity*		Less than 5
Resolving Power†	TOC 1.6:1	320 lines/mm
	TOC 1000:1	1000 lines/mm

* Read at a net diffuse visual density of 1.0, using a 48-micrometre aperture.

† Determined according to a method similar to the one described in ISO 6328-1982, *Photography—Photographic Materials—Determination of ISO Resolving Power*.

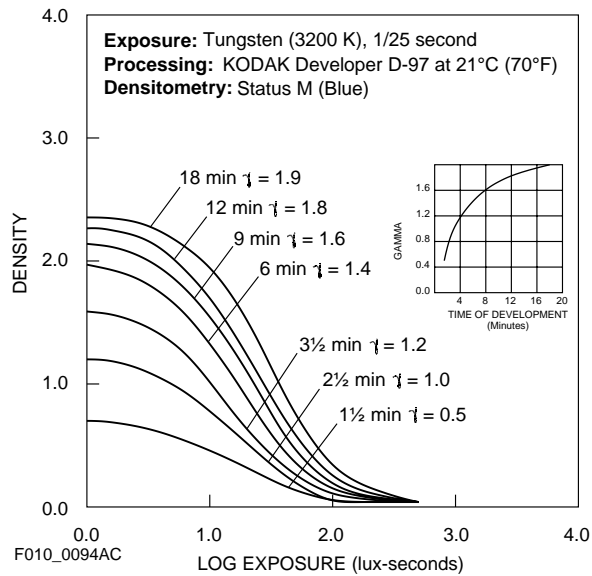
PRINTING CONDITIONS

You can make satisfactory black-and-white duplicates of black-and-white negatives or prints, or color prints, using a continuous additive printer, such as the Bell & Howell, Model C, equipped with a 1000-watt lamp at 95 volts dc, ground-glass diffuser, printer speed of 180 feet per minute (35 mm film).

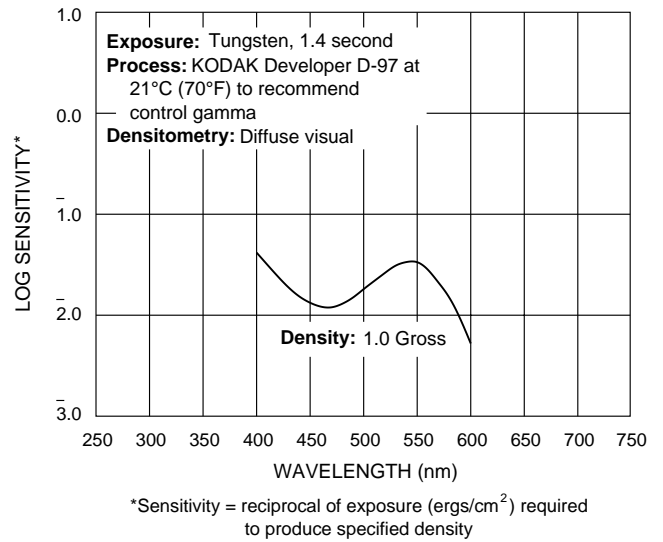
For duplicating color prints, set the trim settings (red, green, and blue) at 24 and the vane settings (red, green, and blue) at 36. For duplicating black-and-white negatives or prints, set all trim settings at 24 and all vane settings at 33.

You can make duplicates of black-and-white negatives using a subtractive printer, such as the Acme optical printer, equipped with a 750-watt lamp at 86 volts dc, ground-glass diffuser, and at a printer speed of 20 feet per minute (35 mm), a 170-degree shutter opening, and aperture of *f*/5.6. You must insert a KODAK Heat Absorbing Glass, No. 2043, and a KODAK WRATTEN Neutral Density Filter No. 96 in the main beam.

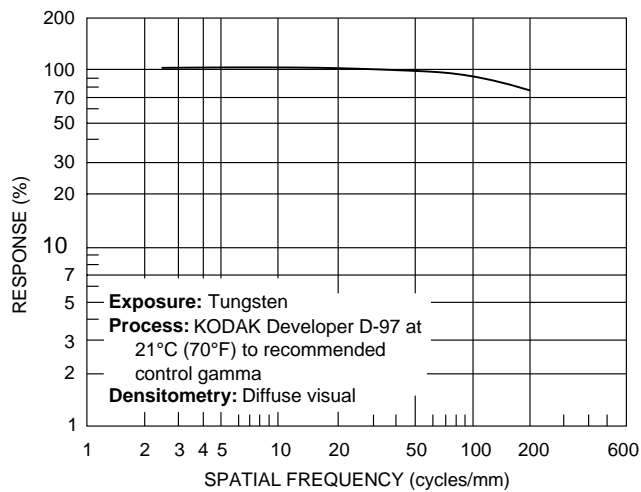
Characteristic Curves



Spectral-Sensitivity Curves



Modulation-Transfer Curve



Notice: While the data presented are typical of production coatings, they do not represent standards which must be met by Kodak. Varying storage, exposure, and processing conditions will affect results. The company reserves the right to change and improve product characteristics at any time.

These photographic modulation-transfer values were determined by using a method similar to the one described in ANSI Standard PH2.39-1977(R1990). The film was exposed with the specified illuminant to spatially varying sinusoidal test patterns having an aerial image modulation of a nominal 60 percent at the image plane, with processing as indicated. In most cases, these photographic modulation-transfer values are influenced by development-adjacency effects and are not equivalent to the true optical modulation-transfer curve of the emulsion layer in the particular photographic product.

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AVAILABLE ROLL LENGTHS

For information on film roll lengths, check Kodak's *Professional Motion Imaging* price catalog or see a Kodak sales representative in your country.

KODAK LOCATIONS

FOR DIRECT ORDERING IN THE UNITED STATES:
1-800-621-FILM

ATLANTA, GEORGIA

4 Concourse Parkway
Suite 300
Atlanta, Georgia 30328-5379
Information: 800-800-8398

CHICAGO, ILLINOIS

815 West Van Buren, Suite 320
Chicago, Illinois 60607
Information: 312-492-1423

DALLAS, TEXAS

11337 Indian Trail
Dallas, Texas 75229
Information: 972-481-1150 or 312-492-1423

HOLLYWOOD, CALIFORNIA

6700 Santa Monica Boulevard
P. O. Box 38939
Hollywood, California 90038-1203
Information: 323-464-6131

NEW YORK, NEW YORK

360 West 31st Street
New York, New York 10001-2727
Information: 212-631-3450

LATIN AMERICAN REGIONAL OFFICE

8600 NW 17th Street, Suite 200
Miami, Florida 33126
Information: 305-507-5656

FOR DIRECT ORDERING IN CANADA:
1-800-621-FILM

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4 Place du Commerce
Ile des Soeurs
Verdun, Quebec, H3E 1J4, Canada
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TORONTO, CANADA

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3500 Eglinton Avenue West
Toronto, Ontario, M6M 1V3, Canada
Information: 416-766-8233

VANCOUVER, CANADA

Kodak Canada Inc.
4185 Still Creek Drive
Burnaby, British Columbia, V5C 6G9, Canada
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KODAK On Line At:

<http://www.kodak.com/go/motion>



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