## **KODAK HAWKEYE Surveillance Film**

# Kodak

## TECHNICAL DATA / BLACK-AND-WHITE FILM

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KODAK HAWKEYE Surveillance Film is a continuous tone, black-and-white panchromatic film with extended red sensitivity created for traffic surveillance recording.

HAWKEYE Surveillance Film is intended for exposure under daylight, artificial light, or red filtration in night flash applications.

This film features high speed, wide exposure latitude, and a wide contrast range, especially compared to other films intended for this application. Excellent sharpness, resolving power characteristics, and extremely fine grain allow a high degree of enlargement.

Base	Size	
0.10 mm (0.004 inch) ESTAR	35 mm long roll	

## **SAFELIGHT**

Handle unprocessed film in total darkness.

Process this film in total darkness through the fixing step. Do not use a safelight.

## STORAGE AND HANDLING

Store unexposed film at 13° C (55° F) or lower in the original sealed package. Allow the package 2 to 3 hours to warm to room temperature before opening.

Load and unload the camera in total darkness.

Process exposed film promptly.

Store processed film in a cool, dry, dust-free place. Avoid prolonged exposure to strong light.

## **EXPOSURE**

## Speed

Use these speed numbers with meters and cameras marked for ISO, ASA, or DIN speeds or exposure indexes. For critical work, make a series of test exposures.

The nominal unfiltered or filtered speed for this film depends on the developer chosen for processing. Use the chart below to determine the appropriate exposure index.

**Note:** Do not make light meter readings through the SCHOTT Filter RG 665. The El values in the table include the filter factor.

## **Exposure Index Table**

KODAK Developer	Exposure Without a Filter	Exposure With SCHOTT Filter RG 665
VERSAMAT 885	500 / 29°	22 / 15°
T-MAX	400 / 27°	20 / 14°
T-MAX RS	400 / 27°	20 / 14°
D-76	250 / 25°	16 / 13°
HC-110 (Dilution B)	200 / 24°	12 / 12°
DURAFLO RT	250 / 25°	16 / 13°

## **Filter Factors**

SCHOTT Filter RG 665: 5500 K electronic flash filter factor = 16 (4 stops)

## Reciprocity

No exposure time or development adjustment is necessary for exposure times between 1/10,000 second and 1 second.

## MANUAL PROCESSING

**Notice:** Observe precautionary information on product labels and on the Material Safety Data Sheets.

- Handle unprocessed film in total darkness.
- Do not use a safelight; do not develop this film by inspection.
- Mask illuminated lab equipment, such as timer dials, and make sure there is no afterglow from fluorescent fixtures.

## **Development:**

- Development times given below are starting-point recommendations to achieve the listed Contrast Index.
- Adjust contrast by increasing or decreasing the development time. Develop test exposures at times adjusted in 10% increments until the desired contrast is achieved.
- For best results, keep temperatures of all solutions close to the developer temperature.

## Film Exposed With SCHOTT Filter RG 665

	Development Time in Minutes at 20°C (68°F) To Produce a Contrast Index of:				
KODAK Developer	0.50 (1stop pull)	0.56 (normal)	0.65 (1 stop push)	0.75 (2 stop push)	0.85 (3 stop push)
VERSAMAT 885	3.5	5	6.5	8	9.5
T-MAX	3	4.5	6	7.5	9
T-MAX RS	2	2.5	4	6.5	8.5
D-76	3.5	5	6.5	8	9.5
HC-110 (Dilution B)	2.5	3	4	5.5	7

## Film Exposed Without a Filter

KODAK	Development Time in Minutes, at 20° C (68° F) To Produce a Contrast Index of:				
Developer	0.50 (1 stop pull)	0.56 (normal)	0.65 (1 stop push)	0.75 (2stop push)	0.85 (3 stop push)
VERSAMAT 885	4	5.5	7	9	11
T-MAX	4	5.5	6	9	11
T-MAX RS	2	3	4.5	7.5	11
D-76	4	5.5	7	9	11
HC-110 (Dilution B)	2	2.5	3.5	4.5	8

## Following development:

#### Rinse:

18 to 24° C (65 to 75° F) with continuous agitation, choose:

KODAK Indicator Stop Bath	30 Seconds
Running Water	30 Seconds

**Note:** The use of a stop bath is recommended to effectively terminate development.

#### Fix:

18 to  $24^{\circ}$  C (65 to  $75^{\circ}$  F) with frequent agitation, choose:

KODAK Rapid Fixer (film dilution)	3 to 5 minutes
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#### Wash

10 to 30 minutes in running water at 18 to  $24^{\circ}$  C (65 to  $75^{\circ}$  F), using a water flow sufficient to give at least one complete change of water in 5 minutes.

KODAK Hypo Clearing Agent can be used to reduce washing time and conserve water. Treat the film in Hypo Clearing Agent for 1 to 2 minutes at 65 to 75° C(18 to 24° C), and wash as above for 5 minutes.

To minimize drying marks, treat the film in KODAK PHOTO-FLO Solution after washing.

#### Drv:

Dry the film in a dust-free environment. For long rolls that can be air dried on a spiral reel, more rapid drying can be obtained with a rotating reel unit and forced warm air.

## **MACHINE PROCESSING**

**Notice:** Observe precautionary information on product labels and on the Material Safety Data Sheets.

## Film Exposed Unfiltered, or with a SCHOTT Filter RG 665:

	Development Time in Seconds, at 27° C (80° F) To Produce a Contrast Index of:				
KODAK Developer	0.50 (1stop pull)	0.56 (normal)	0.65 (1 stop push)	0.75 (2 stop push)	0.85 (3 stop push)
VERSAMAT 885	45	50	60	70	100
DURAFLO RT	43	46	57	68	102

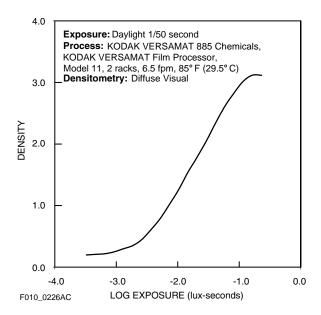
## Replenishment:

Starting point rates, millilitres per square inch of film processed:

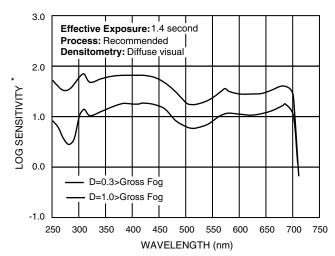
Developer	Fixer
0.20 ml / sq in	0.35 ml / sq in
310 mL / sq m	540 mL/ sq m

## **CURVES**

## **Characteristic Curve**



#### **Spectral Sensitivity**



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

## **KODAK HAWKEYE Surveillance Film**

## **MORE INFORMATION**

For the latest version of technical support publications for Kodak products, visit Kodak on-line at:

## http://www.kodak.com/go/SDRproducts

If you have questions about Kodak products, call Kodak. In the U.S.A.:

1-800-242-2424, Ext. 19, 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)

From outside the US/Canada: 1-716-724-4000

**Note:** The Kodak materials described in this publication for use with KODAK HAWKEYE Surveillance Film are available from dealers who supply Kodak products. You can use other materials, but you may not obtain similar results.

NOTICE: While the sensitometric data in this publication 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.

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