

FACT SHEET

SP816T

FAST, BLACK AND WHITE FILM FOR TRAFFIC SURVEILLANCE

DESCRIPTION

ILFORD SP816T is a fast, black and white film for traffic surveillance. It has extended red sensitivity (up to 740nm), so it is especially suited to red flash traffic surveillance and to sites where red filters are used in front of the camera. It also has full panchromatic sensitivity to ensure good pictorial contrast with or without the use of a red filter.

SP816T has a wide exposure latitude and is therefore suitable for use in a range of exposure conditions during both day and night.

SP816T is specially designed and suited to the needs of photographic traffic surveillance, in both stationary and mobile units.

Availability

SP816T is coated on 0.075mm/3mil grey polyester base which gives good halation protection and cannot be torn in the camera. It is available in 35mm/36 exposure cassettes for mobile units and 35mm bulk lengths of 17m and 30.5m (55ft and 100ft) without spool or core for use in stationary units. The thin base means that more film fits into standard magazines, so they need to be emptied less often (30.5m/100ft fits into 17m/55ft magazines).

EXPOSURE

SP816T film is designed to be used with all red filters which are normally used for photographic traffic surveillance. The most common filter is the RG665. The red filter is recommended for use day and night over the flash. It is also recommended over the camera lens during the day. Additionally, a polarising filter is recommended over the camera lens as it reduces the reflections from car windscreens.

SP816T has a film speed of EI 400/27. It will also give good quality results when push processed up to EI 3200/36.

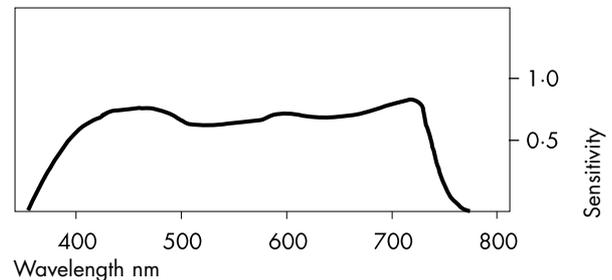
Always handle the film cassette or magazine in subdued light, for example when loading and unloading the camera. The following exposure settings are typical of commercially available traffic surveillance units.

Time of day	Shutter speed	Aperture
Day	1/500 or 1/1000 s	f5.6
Night	1/500 or 1/1000 s	f4

SP816T film must be handled and processed in total darkness.

SPECTRAL SENSITIVITY

Wedge spectrogram to tungsten light (2850K)



The wedge spectrogram shows the extended red sensitivity (up to 740nm) of SP816T films.

DEVELOPMENT

SP816T can be processed in all types of processing equipment including spiral tanks, rotary processors, deep tanks and automatic processors.

It is robust during processing and will tolerate less than ideal processing conditions.

Recommended developers

Processing method	Liquid	Powder
Spiral tank, deep tank and rotary processors	ILFOTEC HC ILFOTEC DD-X	MICROPHEN
Dip and dunk machines	ILFOTEC DD	MICROPHEN
Short leader processors	ILFOTEC – RT RAPID	
Roller transport processors	ILFOTEC RT RAPID	–

There is a wide range of other developers available from ILFORD.

Development times

The table gives development times for both manual and machine processing. The development times are intended as a guide and may be altered if a different result is needed

For use in rotary processors without a pre-rinse, reduce the spiral tank development times by up to 15%. Generally, a pre-rinse is not recommended as it can lead to uneven processing.

Note

Development times may need adjusting to suit individual exposing conditions, processing systems and working practices. If an established system is producing good results, adjust the recommended development times until the desired contrast level is obtained. Higher or lower than average contrast negatives may be preferred by some individuals to suit their particular darkroom set-up and working methods.

Development times in other manufacturers' developers are included for your convenience, and are only a general guide. Adjust these times to suit your processing system. Other manufacturers can and do change their product specifications from time to time, and the development times may change as a result.

Spiral tank, deep tank, dip and dunk machines (min)

	Dilution	20°C /68°F	24°C /75°F
ILFORD developer			
ILFOTEC DD-X	1+9	10	7
ILFOSOL S	1+9	9 1/2	7
ILFOTEC HC	1+15	5	3 1/2
	1+31	9	6
ID-11	stock	10	7
MICROPHEN	stock	8 1/2	6 1/2
PERCEPTOL	stock	14 1/2	10 1/2
Non-ILFORD developer			
Agfa Atomal	stock	9	6
Agfa Refinal	stock	8	6
Agfa Studional	1+15	7	5
Kodak D-76	stock	10	7
Tetenal Neotenal	stock	8	6

Dip and dunk machine

	Dilution	24°C /75°F
ILFOTEC DD	1+4	8 1/2

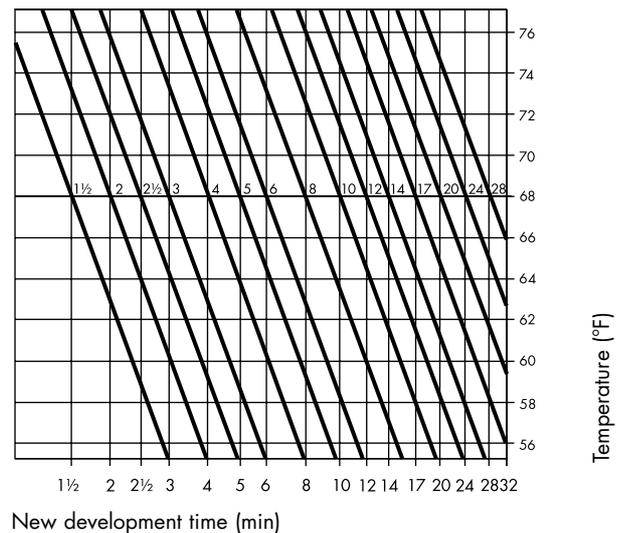
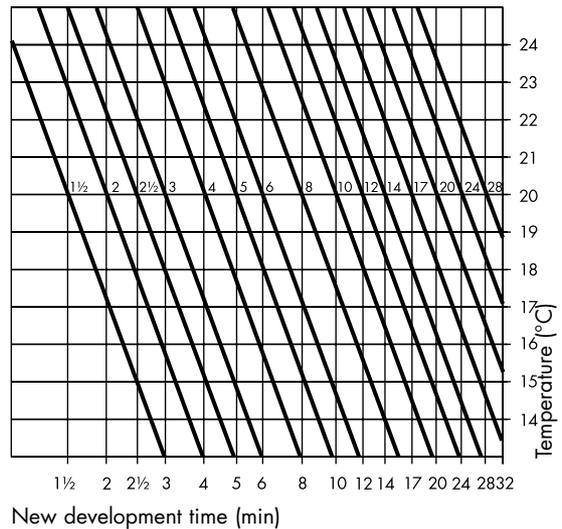
Roller transport, short leader machines (sec)

	Dilution	26°C /79°F
ILFOTEC RT RAPID	1+1+2	90
ILFOTEC HC	1+11	70
Kodak Duraflo	stock	90

Processing at different temperatures

SP816T film can be processed over a range of temperatures. Development times at temperatures other than 20°C/68°F may be calculated from the chart below.

For example, if 4 minutes at 20°C/68°F is recommended, the time at 23°C/73°F will be 3 minutes and the time at 16°C/61°F will be 6 minutes.



SPIRAL TANK, DEEP TANK AND ROTARY PROCESSORS

Fixation

After development, rinse the film in water or an acid stop bath such as ILFORD ILFOSTOP PRO and fix in ILFORD HYPAM fixer (1+4) for 2–4 minutes at 20°C/68°F. If ILFORD HYPAM HARDENER is added to the fixer, fix for 5 minutes at a temperature within 5°C/9°F of the development temperature. A hardener is recommended only when processing at high temperatures (above 30°C/86°F).

Washing

Where a non-hardening fixer, such as HYPAM, has been used, wash the film in running water for 5–10 minutes at a temperature within 5°C/9°F of the processing temperature.

Where a hardening fixer has been used, because processing is above 30°C/86°F, thoroughly wash the film in running water for 15–20 minutes at a temperature within 5°C/9°F of the processing temperature.

A final rinse in water to which ILFORD ILFOTOL wetting agent has been added 1+200, 5ml/l will aid rapid and uniform drying.

Drying

To avoid drying marks, use a clean squeegee or chamois cloth to wipe the film before hanging it to dry. Dry films at 30–40°C (86–104°F) in a drying cabinet or at room temperature in a clean, dust free area.

MACHINE PROCESSING

After development, fix the film in ILFORD HYPAM (1+4). When roller transport processing, add one part ILFORD HYPAM HARDENER to every 40 parts working strength HYPAM fixer. Hardener protects the film during the remainder of the roller transport processing sequence.

For convenient processing, the ILFORD ILFOLAB FP40 film processor with ILFOTEC RT RAPID developer and HYPAM fixer 1+4 is particularly recommended.

EVALUATING THE NEGATIVES

The detail in SP816T negatives minimises any ambiguity in identifying the registration number and the driver. Although the negatives may appear of low contrast, they will produce excellent images whether on a video system or enlarged onto photographic paper.

SP816T negatives show:
 Very detailed, extended shadows
 Good highlight detail
 A wide grey scale
 Especially fine grain
 Excellent sharpness.

Video systems

By adjusting the brightness and contrast controls, all the important information in the negative can be viewed on the monitor. The brightness and contrast can be changed to suit individual areas, for example, the vehicle registration number or the driver's face, so maximum information can be gained.

Pictures can be printed from the monitor on a thermal printer for record purposes, but the quality will be limited.

Black and white enlargements

Prints on photographic paper can be easily made from SP816T negatives. The contrast of these negatives is very similar to normal black and white negatives. By choosing the appropriate grade of photographic paper, and perhaps by burning in or shading individual areas of the print during printing, maximum information can be gained. Prints made on photographic paper also give a fully detailed, long term record.

Best results will be obtained by using a high quality photographic paper. Especially recommended are the range of ILFORD papers, such as MULTIGRADE IV RC DeLuxe or ILFOSPEED RC DeLuxe. Additionally, for easy contrast control, the ILFORD MULTIGRADE 600 exposing equipment is recommended.

STORAGE

In common with all film, store SP816T in a cool (10–20°C/50–68°F), dry place in its original packaging. Store processed negatives in a cool (10–20°C/50–68°F), dry place in the dark.

A wide range of fact sheets is available which describe and give guidance on using ILFORD products. Some products in this fact sheet might not be available in your country.