

## FACT SHEET

# HP5 *Plus* ISO 400/27

## BLACK AND WHITE NEGATIVE MOTION PICTURE FILM

ILFORD HP5 Plus negative motion picture film is a fast, panchromatic black and white film. It is ideal for general purpose studio and outdoor motion picture photography under most lighting conditions.

HP5 Plus negative motion picture film is coated on 0.125mm (125 micron,  $\frac{5}{1000}$  inch) acetate base and is manufactured in both 35mm and 16mm formats. Film is available in lengths typical of those required for motion picture work with the film wound on the appropriate core or daylight loading spool.

HP5 Plus negative motion picture film is manufactured to short pitch perforation standards according to ISO491:1995 (35mm) and ISO69:1990 (16mm). The 35mm format has double negative (B&H) perforations and the 16mm format is available as both double perforated and single perforated (Super 16).

### EXPOSURE RATING

HP5 Plus negative motion picture film has a speed rating of EI 400/27 to daylight and EI 200/24 to tungsten light (3200K). This is for development to a gamma of 0.65–0.70. The push processing characteristics of HP5 Plus are particularly impressive, and so an exposure rating of up to EI 3200/36 (daylight) can be used when development is extended.

### EXPOSURE TABLE FOR TUNGSTEN LIGHT

At 24 frames per second, 170° shutter opening:

Lens aperture	f1.4	f2	f2.8	f4	f5.6	f8	f11
Foot-candles required	15	30	60	120	240	480	960

### FILTER FACTORS

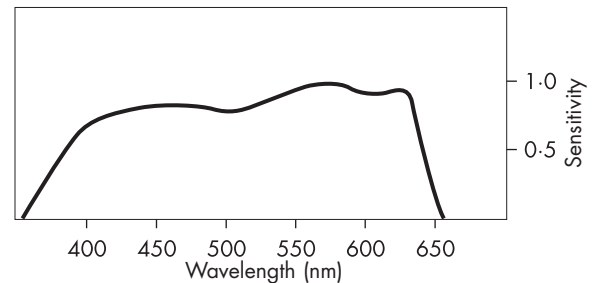
HP5 Plus negative motion picture film may be used with all types of filters (e.g. color, polarizing and neutral density) in the usual way. Follow the instructions given by the filter manufacturer. As a guide, the following filter factors in daylight apply:

Kodak Wratten									
Filter number	3	8	12	15	21	23a	25	29	96*
Filter factor	1.5	1.7	2.0	2.0	2.6	3.0	4.0	10.0	8.0

\*This neutral density filter, with a density of 0.9, reduces the exposure by 3 stops. It is for use in bright sunlight to reduce the exposure without modifying color rendition or depth of field.

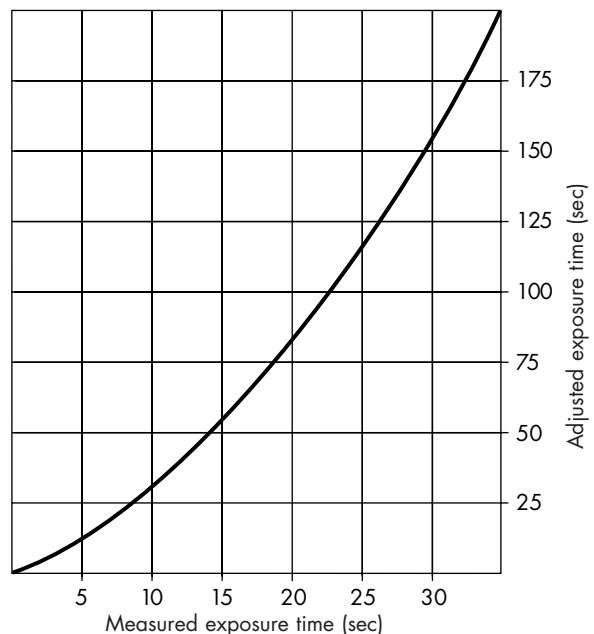
### SPECTRAL SENSITIVITY

Wedge spectrogram to tungsten light (2850K)



### MAKING LONG EXPOSURES

For exposures between  $\frac{1}{2}$  and  $\frac{1}{10000}$  second, no corrections are needed for reciprocity law failure. When exposures longer than  $\frac{1}{2}$  second are given HP5 Plus negative motion picture film needs to be given more exposure than indicated by a meter. Use the graph to calculate the increased exposure time which should be given once the measured time is known.



**PROCESSING**

HP5 Plus negative motion picture film is compatible with all major processing systems and will give excellent results in the industry standard developer, Kodak D-96. The following development times (to a control gamma within the range of 0.65–0.70) are given as a guide and may be altered if a different result is needed.

Developer	Temperature	Development time (min:sec)
Kodak D-96	75°F	6:00
	73°F	6:45
	72°F	7:30
	70°F	8:15
	68°F	9:00

HP5 Plus negative motion picture film will also give excellent results in the range of ILFORD developers, including ID-11, ILFOTEC DD and ILFOTEC RT RAPID. Use the same development times and processing conditions as recommended for HP5 Plus still camera film. Some sample development times are given in the table below.

ILFORD developer	Temperature	Development time (min:sec)
ID-11 (stock)	68°F	7:30
ILFOTEC DD (1+4)	75°F	5:30
ILFOTEC RT RAPID (standard mix)	78.8°F	0:60

For best results, the addition of hardener to the fixing bath is recommended when machine processing. ILFORD UNIVERSAL Rapid Fixer with ILFORD FIX HARDENER are recommended.

**GRANULARITY**

HP5 Plus negative motion picture film developed in Kodak D-96 developer for 6 minutes at 75°F has a diffuse rms granularity of 16.

**SAFELIGHT RECOMMENDATIONS**

Handle HP5 Plus negative motion picture film in total darkness. For very brief inspections during processing, use the ILFORD 908 or Kodak No.3 (very dark green) safelight filters, with a 15W bulb, fitted in a darkroom lamp. Do not allow direct lighting from the safelight to fall on the film.

**EDGE SIGNING**

HP5 Plus negative motion picture film is signed along one edge, at 12in intervals, with an advancing footage number. For example:

FA2 B75028, FA2 B75029, FA2 B75030 etc.

The first letter identifies the emulsion type. For HP5 Plus, this is F, G or H. The first number identifies the machine used for signing.

The second and third letters increase the range of signing without repetition. They are changed in the sequence AA, AB, AC and so on to AJ and then BA, BB, BC etc up to JJ.

Between the footage numbers the film is also signed with 'ILFORD SAFETY FILM'.

**STORAGE**

Store unexposed film in a cool (50–68°F), dry place in its original packaging. Once exposed, process HP5 Plus negative motion picture film as soon as practical. Store processed negatives in a cool (50–68°F) dry place, in the dark.

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