

TECHNICAL INFORMATION

**HARMAN
RED****C41 PROCESS REDSCALE FILM**

HARMAN RED is a C41 process, redscale negative film. HARMAN Red is based on a colour negative film, however the normal orientation has been reversed so the emulsion is outermost in the cassette or film spool. HARMAN Red is available as both 135 36exp DX coded cassettes and 120 Roll film format. 135 DX coded cassettes have the correct signing orientation, frame numbering and edge DX coding. HARMAN Red will therefore work correctly when scanning using commercial lab equipment and provide full 135 DX coding functionality in supporting scanners and cameras.

Depending upon the exposure and colour characteristics of a scene, images can range from strong "apocalyptic" looking bright orange and red tones to more subtle orange and green tones and delicate shadows. Higher exposures will yield finer grain and brighter tones. Lower exposures will show more green foliage, coarser grain and prominent shadows.

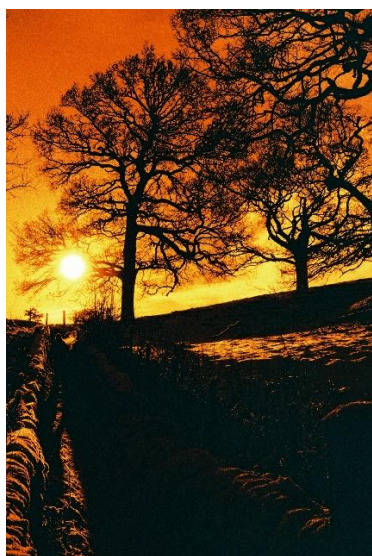
Nominally rated at EI 125, the usable exposure range is EI 50 - 400 and best results in the range EI 100 – 200 depending on scene brightness and contrast. HARMAN Red is very much an experimental film, and the best results are initially obtained by bracketing your exposure. Bracketing the exposure can alter a particular scene quite dramatically (See below Examples)

Under exposure – Coarser grain, prominent shadows, deeper reds.

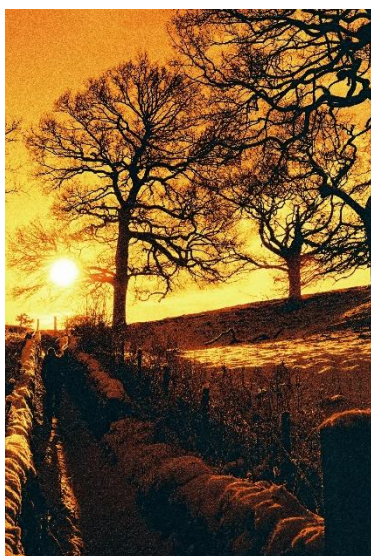
Normal exposure – Normal grain, Consistent orange tones, softer shadows.

Over Exposure – Finer grain – Brighter, more contrasty images, varying tones.

Example scenes shot with exposure bracketed in whole stops -1, 0, +1



EI 250 (-1)



EI 125 (0)



EI 64 (+1)



EI 250 (-1)



EI 125 (0)



EI 64 (+1)

HARMAN Red can be used for any photographic subject with results dependent upon ambient lighting conditions, colour palette, and exposure accuracy. Best results are typically obtained with bold dramatic subjects, strong sunlight and shadows.

HARMAN Red can be easily scanned on a range of commercial scanners, as this is an experimental type of film some density and colour balance corrections will be required to achieve the best results. You may wish to create custom settings for our Redscale film.

HARMAN Red film can easily be processed in C41/CN16 chemicals

NB Please see our processing section for important information on processing HARMAN Red

HARMAN Red film is coated on 0.125mm/5-mil acetate base and is available in 36 exposure ISO 125 DX coded cassettes suitable for all 35mm cameras.

EXPOSURE RATING:

HARMAN Red film has a speed rating of EI 125 (125ASA, 22DIN) to daylight. The speed rating was determined using a practical evaluation under mixed outdoor lighting conditions and processed using standard C41 processing chemicals. Practical evaluations have shown the film works well in the range EI 100-200 with usable results across a range of exposures from EI 50 to EI 400. The cassettes are DX coded at ISO 125 for convenience.

HARMAN Red is a high contrast film but will still provide very usable and easy to print images across a range of exposures.

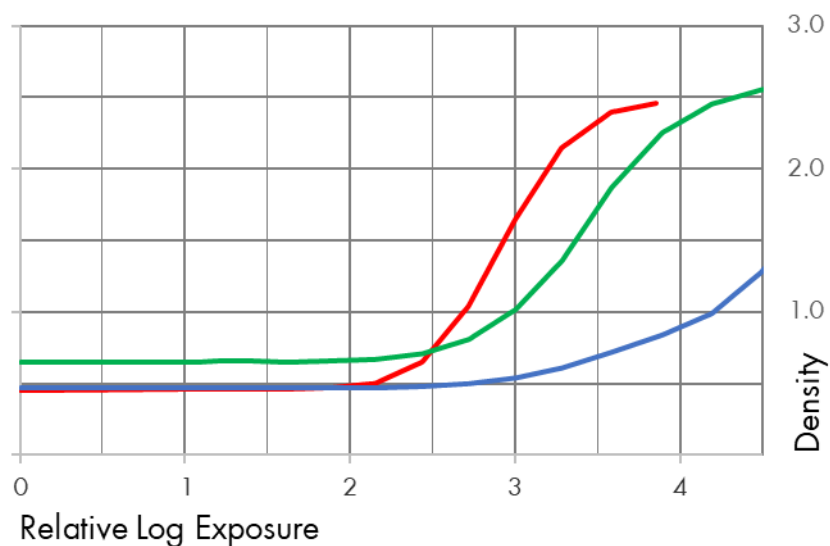
FILTER FACTORS:

HARMAN Red film may be used Polarising or neutral density filters in the usual way. For all other coloured or special effect filters - some experimentation is required, in addition to instructions given by the filter manufacturer.

CHARACTERISTIC CURVE

- The Red channel records red and blue light from the subject
- The green channel records green and blue light from the subject.
- Very little information is recorded in the blue channel.

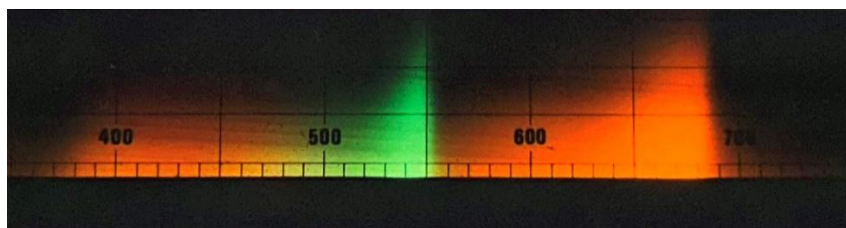
The "Apparent" blue speed is very low because blue areas of the image are recorded in the red and green channels instead.



HARMAN Red film processed through standard C41 type chemicals.

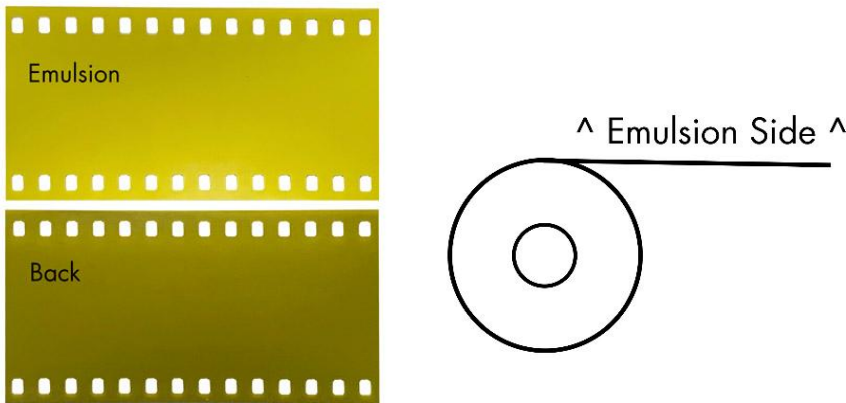
SPECTRAL SENSITIVITY:

Wedge spectrogram to tungsten light (2856K)



HARMAN Red film processed through standard C41 type chemicals.

Emulsion Orientation



Emulsion colour is yellow and outermost, back side is green.

PROCESSING:

HARMAN Red is fully compatible with C41 type processing chemicals, both replenished (e.g. in dip and dunk or roller transport processors) and unreplenished (e.g. in spiral tanks or with Jobo rotary processing). The film can be put through standard C41 lines with no adjustment to processing speed, temperature, or replenishment rates. No processing adjustment is required for bracketed exposures. Please note opposite orientation of emulsion.

NB: EMULSION ORIENTATION

The emulsion is the opposite way up to a standard 35mm cassette therefore there are some special considerations when processing (please see below)
Additionally, 120 Roll film features an instruction to reverse the orientation of the film for processing on the exposed label.



Spiral tank / Job Processing

Load normally but reverse the orientation of the cassette to load with the emulsion wound toward the inside of the spiral.

Dip and dunk hangar processing.

Where looped hangars are used, the emulsion normally faces outwards. Please note the emulsion direction when loading your films.

NB: ROLLER TRANSPORT and LEADER CARD MACHINES

The emulsion is uppermost in HARMAN Red film, therefore for best results and to avoid uneven processing or roller marks when processing in roller transport or leader card processing equipment the orientation of the emulsion should be reversed by using a reloadable cartridge if necessary.

Safelight recommendations

Handle HARMAN Red film in total darkness.

Drying

If processing by hand and to avoid drying marks, use a clean squeegee or chamois cloth to wipe the film before hanging it to dry. Dry the film at 30–40°C/86–104°F in a drying cabinet or at room temperature in a clean dust-free area.

Push processing

Push processing is not recommended for HARMAN Red.

STORAGE:

For immediate use, store HARMAN Red in a cool (10–20°C/50–68°F), dry place in its original packaging. HARMAN Red may be stored in a fridge/freezer but allow plenty of time for the film to acclimatise prior to use.

Unexposed Film

Store unexposed film in the same way as other colour films, i.e., in a cool (10–20°C/50–68°F), dry place in its original packaging.

Exposed film

Once exposed, process HARMAN Red as soon as practical. Exposed films should always be stored in cool, dry conditions - as recommended above.

Negatives

Store processed negatives in a cool (10–20°C/50–68°F), dry place, in the dark. Suitable storage sleeves include those made of cellulose triacetate, Mylar, paper (pH6.5–7.5) or inert polyester.

Correctly processed HARMAN Red negatives usually have a slight magenta / purple base tint and strongly blue tinted images, although the exact negative image colour will depend on the particular scene and exposure.

Emulsion side identification

Harman Red is unlike ordinary colour films having the emulsion opposite to normal orientation. To determine the emulsion side, view the negatives towards a light source, with the edge signing reading correctly the emulsion is facing toward you.

SCANNING & PRINTING:

Print making

HARMAN Red negatives are printed in the same way as other colour C41 films. Either via scanned negatives or direct analogue exposure. The images are correctly oriented when the edge signing reads correctly.

Scanning

Use standard colour settings and auto correction for most scanners. HARMAN Red is an experimental type of film and some density and colour balance corrections will be required to achieve the best results. You may wish to create custom settings for our Redscale film.

NB. As with other C41 process films, Digital Image Correction and Enhancement (Digital ICE) can be used to remove dust and scratches automatically from the image.

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