

B+W Filter Tips and Tricks

B+W Infrared-Filter

For the IR photographer there is a special fascination in contemplating black and white infrared photos. The reason is surely the altered reproduction of the grey tones arising from an extremely increased black-white contrast. Leaf green is rendered as white. There is an impressive contrast with the black reproduction of the blue sky portions.

The human eye sees into the red range as far as 780 nm. The IR spectrum that lies beyond that is invisible. The IR-sensitive camera sensor is more responsive and can reproduce infrared radiation beyond the visible range. Cameras have a special filter installed – usually permanently – in front of their sensor, which absorbs IR radiation. This is necessary to avoid the blurring that could result from overlays of the IR and visible light spectra. The cut is usually well above 780 nm, so that the residual sensitivity can be used for infrared images.

You can easily test whether a digital camera is sufficiently sensitised to capture IR images. Take your TV remote control and point it towards the camera lens. When you activate it, the normally invisible light for the sensor appears white. If this is the case, you can use the camera for captivating IR images.

With a suitable B+W infrared filter the daylight will be blocked, and only infrared components will be able to pass on to the camera's sensor.

The B+W 092 infrared filter 695 is suitable for use as a universal IR filter and is preferred for use in pictorial photography. It displays a suitable IR effect with most digital cameras. At over 90%, the transmittance from 730 nm to 2000 nm is very high. That makes it possible to take shots of the pure red and IR range. In the latter case, it is possible to fully exploit the digital camera's residual IR sensitisation.

The B+W 093 Infrared Filter 830 blocks the entire visible light spectrum and appears almost completely black. In contrast to the B+W 092 infrared filter 695, it facilitates pure infrared photographs without the visible red. The "Wood effect" is even more extreme. With this filter it is particularly important to pay attention to the "TV remote test", because with some digital cameras this filter can intersect with the sensitivity range and the images will remain black.



Photo without filter



Photo with B+W 092
Infrared filter 695



Photo with B+W 093
Infrared filter 830

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Tip:

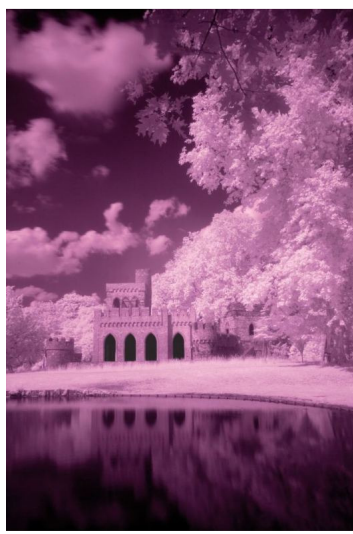
The use of a stable tripod is recommended for IR images, because long exposure times are usually needed. The choice of framing and the infrared-related focusing is always done before screwing on the filter. The exposure values and the exposure compensation factor are dependent on several factors: type of camera, ambient light, etc. The right values should be determined using bracketing. The white balance should be done automatically or, better, manually with the IR filter screwed on. The infrared images are optimised with an image-processing program: the red image is converted to black and white, contrast is enhanced automatically or manually in the histogram. Generally speaking, some "twiddling" is allowed in experimental photography, so you can shift the individual color channels as you wish; only the red channel remains at maximum.

Note:

Infrared photography is not a substitute for a thermal imaging camera. The pictorial infrared photography described above is often confused with thermal photography. This also forms images from infrared radiation, but in a much higher range (from about 10,000 nm and above)



Color photo without filter



Color photo with B+W 093 infrared filter,
Without black-white conversion



Photo post-processed in a computer

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