TREND LETTER

Market of the Future
Photo and Imaging

TREND BARO-METER

Photography with rose-tinted glasses

If lenses can generally be regarded as the eyes of the camera, then high-quality accessory lenses and filters are the spectacles that go with them. They enable the quality of the image to be optimised, they can reduce the amount of light which reaches the sensor or the film and generate creative effects. With optical accessories, the effective focal length can be changed and the minimum close-up distance can be reduced. In digital photography many filter effects can be added digitally post-exposure. Some though can only be made directly onto the image and therefore the demand for filters is higher than it has ever been.

Good accessories

With digital photography, the requirements placed on the optical features of lenses and filters have changed. The demands on the optical as well as on the mechanical qualities of these useful aids to promoting image quality and to expanding the creative design possibilities have increased in line with the improving performance by camera sensors and lenses.

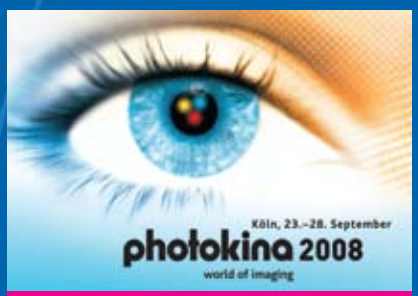
A polarisation filter belongs in the camera-bag of virtually every photographer who owns a camera with a filter thread. This enables reflections on non-metallic surfaces to be eliminated or reduced. They produce more saturated colours, and thus make the sky seem more blue and the fields and the woodlands more green. The most recent generation of this versatile species of filters is manufactured with the same optical and mechanical precision as the lenses themselves. The most important improvements are in the areas of light transmission, coatings and frames.

Improved light transmission rates are, among other things, the result of improved coating processes, which have done more than just improve the optical quality of the filters. Their resistance to scratching has also been increased. With nano-technical coating procedures, filters are also better protected against being marked by finger-prints or drops of water. Innovative coatings have been modelled on the natural characteristics of lotus leaves, from which for instance water-drops fall away without leaving any drying stains. Dirt can be more easily wiped off. Filter frames can today be reduced in size as a result of new high-precision manufacturing techniques. As a result, the danger of vignetting can be avoided particularly when using filters with short focal length lenses.

The optical system assembly is provided with further glass-air surfaces which can reflect light. With digital systems, an effective coating on the front of the filter is not sufficient. As a result of their special surface texture, digital image sensors themselves reflect light, so there exists the danger that stray light-beams will reduce contrast and lead to flat exposures. Therefore high-quality coatings on both filter surfaces make a valuable contribution to preserving the image quality generated by the whole optical system.

Lens manufacturers try to make their lenses as fast as possible, but equally for many purposes filters are needed which reduce exposure to light. This can occur for instance when an open aperture is being deliberately used in order to vary the sharpness of different parts of the subject. This is when what are called neutral density filters which produce a neutral grey are used. This type of filter is also experiencing a recovery in sales with digital photography.

Equally there is in digital photography continued demand for UV-filters, which block the ultraviolet part of the colour spectrum. Strong UV-radiation occurs close to the sea and in the mountains.



How the many benefits from filters and accessories are enabling the digital world to expand through innovative technologies can be seen at photokina 2008 - World of Imaging - from September 23 to 28 in Cologne.

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