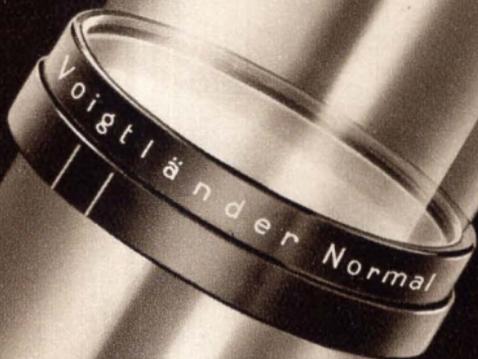


Voigtlander



Yellow Filters



The Correction of Tonal Values

Perhaps you have met a colour-blind person whose inability to distinguish between, let us say, red and green, is a great handicap — just as it is in photography. But in photography, fortunately, this drawback can be overcome.

Every kind of negative material whether plate, film or film-pack, is “colour-blind” to some extent, since the sensitive emulsion cannot distinguish between blue and white. Think of a delightfully blue sky, with white puffs of cloud — this is an admirable finish to a landscape photograph — but you observe with regret when the photograph is printed, that the clouds are absent — just an expanse of white sky. To obtain a correct rendering of cloud effects in your photographs is, however, ever so simple — just use a good yellow filter.

Such a yellow filter absorbs the blue rays to such an extent that the blue of the sky, for instance, becomes less effective than the white clouds, and the picture then possesses the same tone values as our eyes are accustomed to see. When portrait studies are made without a filter they often look somewhat unnatural, the hair and eyes

being of false tonal rendering, and the skin texture is often spoilt. Freckles, in particular look emphasised. All these drawbacks are avoided if you use a light filter.

Any or every piece of yellow glass does not, however, make a light filter, as there are many details to be considered if your photographs are to be good. One of the most important considerations in selecting a yellow filter is to know that surfaces are optically parallel, since it would be foolish to impair the definition of an otherwise good and expensive lens by using a poor quality filter.

Also, the perfect yellow filter must be of the right colour so that the exposing factor (explained later) is as low as possible consistent with the proper correction. Should the colour of the filter have too much green in it, there will be absorbed too much of the orange and pale red light with the result that flesh tones will appear too dark. If, on the other hand, the filter passes too much red light, it will absorb nearly all the green, and the meadows and green leaves in your landscape pictures will be too dark. Even the correct shape and size of the mount is of importance to be sure that there is no obstruction of the light rays at the extreme edges.

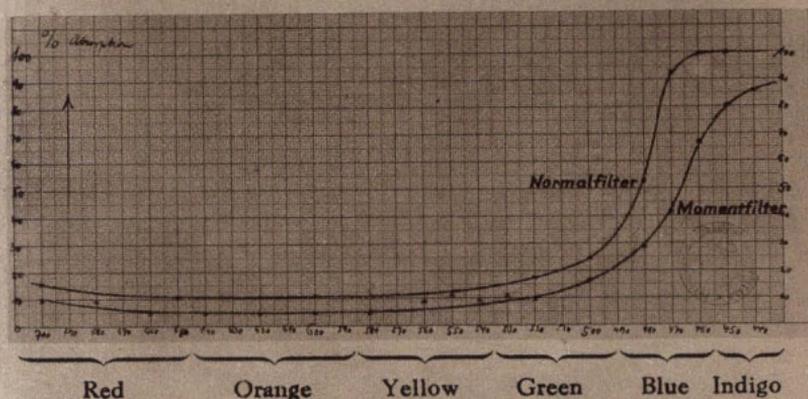
You will often be told that each brand or kind of plate needs a special filter; this is untrue even theoretically. The correct tonal reproduction is not entirely dependent on the sensitivity of the plate and its filter, but equally upon the colour of the lighting. The warm red rays of the evening sun give quite a different effect from the noon-day sun, or from a cloudless blue sky. Obviously, it is not possible to have special filters always at hand for various conditions of light, quite apart from the fact that it is impossible to judge the colour of the light with the naked eye. The most practical solution of the difficulty

is to have just two filters, which answer all practical demands.

For instantaneous exposures and for photographs taken in the evening or at high altitudes, the Voigtlander "Moment" (formerly known as "Alpha") filter should be used, and for all others, the Voigtlander "Normal" (formerly known as "Beta") filter is the most suitable. Complicated operations, working out exposure factors, etc., are then eliminated, and the results will be excellent.

Voigtlander Yellow Filters are made of heavy glass stained in the mass i. e. the glass itself is coloured, and they are therefore much more efficient optically than filters made of two pieces of glass between which a piece of gelatine is cemented. Voigtlander Yellow Filters are made in the same factory as Voigtlander Anastigmat lenses, under exactly the same conditions with equally strict supervision, and undergo the same critical tests and inspection. Thus you may rest assured of their optical perfection.

So that the efficiency of Voigtlander Yellow Filters can be proved, tests made by the Physical-Technical Institute in Berlin (Physikalisch - Technischen Reichsanstalt) are given below.



The curves represent the amount of light (in percentages) of all the colours of the rainbow which the filters absorb, and you can see quite clearly how transparent both the "Moment" and "Normal" filters are for red, yellow, and green. The degree of absorption quickly increases for blue with the "Moment" filter, but is even more pronounced with the "Normal" filter. The absorption of the blue light is, of course, only useful if you are using negative material sensitive to the other principal colours, e. g., yellow and green, and therefore, when importance is placed on the correct tonal reproduction of colours, it is necessary to use a colour-sensitive (called "Orthochromatic") plate or film

The yellow filter absorbs a certain amount of light — the blue rays — which would otherwise take effect on the sensitive material, so it naturally follows that you must increase the exposure time in order to get a properly exposed negative, in fact the denser the filter, the longer the exposure.

For this reason, the lighter filter "Moment" should be used for instantaneous exposures and if possible, in conjunction with fully orthochromatic negative material, otherwise the exposure will be unnecessarily long without a corresponding improvement in the colour rendering.

Voigtlander Filters need only short exposure factors.

On taking fully orthochromatic negative material and using the "Moment" filter the exposure factor (i. e. the factor of increase in ratio to an exposure without a filter) is approx. $2 \times$ and with the "Normal" filter approx. $4 \times$.

Which Voigtlander Filter fits your camera?

Diameter of lens hood	Codeword	
	"Moment" with leather purse	"Normal"
21 mm.	geufy	geuhb
22 mm.	genak*	—
25 mm.	genon	genup
28 mm.	geojb	geold
29 mm.	geomf	geong
30.7 mm.	geobt	geogy
32.5 mm.	geoph	georj
36.8 mm.	geosk	gepal
41.8 mm.	gepem	gepin
46.9 mm.	gepop	gepur
50.9 mm.	geram	geren
56.9 mm.	gerip	geror

List of larger filters on application

* without leather purse