

## Formatt Filters - Wratten Series - 2x2 & 3x3"

The filters are in CR39 Equivalent *polycarbonate*, like spectacle lenses and 1mm thick. They are resistant to warping at up to 60C. These filters have been designed to replace gelatine and polyester filters and are only 1mm thick. The filters can be cleaned with soapy water, lens cleaner etc. The filters are specially designed for use in film laboratories in any printing machine. We have color correction, color temperature conversion, UV absorbing filters and neutral density filters. Fading 8 times longer than standard gelatine filters.

## Formatt Filters for printing in Film Laboratories

Formatt Filters is a company renowned for the high quality and technical excellence of its products.

With a career spanning half a century, Formatt's quality principles have been clearly defined and have brought continued success in the design, development and manufacture of some of the worlds greatest filters. The company's ongoing research and development was originally set up by Reginald Morris, grandfather to the Company founder, who worked for many years as chief physicist at Kodak, helping develop what is now known as the 'Kodak Wratten Standard'. This remains the world-wide standard in technical color correction and stands as the benchmark in all Formatt Filters production today. Further pioneering research in the 1980's resulted in a unique method of colouring filters. This was the catalyst for a new level of consistency and repeatability in filter manufacturing.

## Absorbing Cell Technology™

The secret to Formatt's consistency in filter design lies in our unique "Absorbing Cell Technology™" (A.C.T.™). This unique process allows our colour correct dyes to be applied to our optically pure, wafer thin absorbing cell and offers a controllability which ensures the smoothest of grad lines and consistent color across the whole of the filter surface.

This process is revolutionary compared with conventional filter making techniques by eliminating the need to directly coat the glass surface itself.

Formatt filters are manufactured using a modified CR39 equivalent polycarbonate, similar to spectacle lenses. They are resistant to warping at up to 60°C. Fade resistant up to 8 times longer than standard gelatine filters Formatt filters can be cleaned in lukewarm soapwater and are generally chemical resistant.

## Formatt Color Compensating Filters

Color correction filters are for color balance adjustments and are used singly or in combination to change the overall color balance for viewing or printing.

The technical chart shows a guide to exposure increases you will require in f-stops.

Density	0,03	0,05	0,1	0,15	0,2	0,3	0,4	0,5
Yellow	nil	nil	+1/3	+1/3	+1/3	+1/3	+1/3	+2/3
Magenta	nil	+1/3	+1/3	+1/3	+1/3	+1/3	+2/3	+2/3
Cyan	nil	+1/3	+1/3	+1/3	+1/3	+1/3	+2/3	+1
Red	nil	+1/3	+1/3	+1/3	+1/3	+1/3	+2/3	+1
Green	nil	+1/3	+1/3	+1/3	+1/3	+1/3	+2/3	+1
Blue	nil	+1/3	+1/3	+1/3	+2/3	+2/3	+1	+1 1/3

## Formatt Color Temperature Conversions Filters - CTC

Color temperature Conversion Filters - CTC are used to convert temperature of a light source to balance with the film type in use. They can also be used to create an intentional warm or cool effect.

The Blue 80A is used for exposing daylight type color materials under 3200°K tungsten illumination, while 80B is for use in 3400°K photolamps. The 80C provides a shift to clear aluminium filled flasbulbs. Amber 85 and 85B are used for exposing Type B (tungsten) materials in daylight, the paler 85C is sometimes preferred for exposing Type L and tungsten materials in daylight.

Major adjustment	Exposure	Conversion
Blue 80A	+2	3200° - 5500°K
Blue 80B	+1 2/3	3400° - 5500°K
Blue 80C	+1	3800° - 5500°K
Blue 80D	+1/3	4200° - 5500°K
Amber 85	+2/3	5500° - 3400°K
Amber 85B	+2/3	5500° - 3200°K
Amber 85C	+1/3	5500° - 3800°K
Fine adjustment	Exposure	Conversion

<b>Light Blue 82</b>	+ 1/3	3100° - 3200°K
<b>Light Blue 82A</b>	+ 1/3	3000° - 3200°K
<b>Light Blue 82B</b>	+ 2/3	2900° - 3200°K
<b>Light Blue 82C</b>	+ 2/3	2800° - 3200°K
<b>Light Amber 81</b>	+ 1/3	3300° - 3200°K
<b>Light Amber 81A</b>	+ 1/3	3400° - 3200°K
<b>Light Amber 81B</b>	+ 1/3	3500° - 3200°K
<b>Light Amber 81C</b>	+ 1/3	3600° - 3200°K
<b>Light Amber 81D</b>	+ 2/3	3700° - 3200°K
<b>Light Amber 81EF</b>	+ 2/3	3850° - 3200°K

## Formatt Neutral Density Filters

The Laboratory standard neutral density filters are Formatt 'M' type, and designed precisely for film laboratories. Normally ND filters are made by dyeing the resin with synthetic dyes. These particular filters however, are made with colloidal carbon as the adsorber and consequently they are very resistant to fading and perform well at high temperatures. They are not suitable for putting in front of cameras where they would exhibit a slight cloudiness. They conform exactly to the Wratten specification.

Since ND filters uniformly reduce light of all wavelengths, there is no effect on the color rendition. They may be used single or in multiples. The total filter density will equal the sum of the individual filter densities.

Density	Transmission	Exposure
<b>ND 0,1</b>	80%	+ 1/3
<b>ND 0,2</b>	63%	+ 2/3
<b>ND 0,3</b>	50%	+ 1
<b>ND 0,6</b>	25%	+ 2
<b>ND 0,9</b>	12%	+ 3
<b>ND 1,2</b>	6,3%	+ 4

## Formatt UV absorbing Filters

**2B** - This filter absorbs ultraviolet radiation under 390m $\mu$  and is used when printing color negative to color positive film.

**2E** - This filter absorbs radiant energy under 415m $\mu$  and is used when printing negative color film to intermediate positive color film and on to intermediate negative color film.

Formatt Filter Sizes - Standard 2x2" and 3x3" or 50x50mm and 75x75mm. Thickness 1mm.  
Other sizes on request.

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