

sinar Color Control Filters

Using Filters – the right way!



Filters are an exceedingly important topic in creative and very precisely executed photography, primarily when our subjective perception of something is to be changed, or when a particular effect needs to be created.

Whereas our eyes always perceive colors as "correct", even under the most diverse kinds of illumination, film often reacts quite differently. Film is balanced for a specific color temperature, and when it is used with a light source that has a different color balance, the results will show a greater or smaller color cast. Filters provide us with the opportunity of softening, eliminating or intensifying that color cast. Filters can also be used to achieve certain pictorial effects or to influence the overall mood of an image.

Sinar offers a complete selection of Color Control Filters that were developed in accordance with precise sensitometric principles and produced in fine density steps with tight tolerances. Filters too, are subjected to rigid quality control at Sinar. It is a firm belief at Sinar that filters have to be as precise optically as the lens itself. Otherwise what good is a superb lens when its high performance is impaired by a low-quality filter?

● **Neutral Density (ND) Filters:** Gray filters that serve to reduce light intensity without changing other light characteristics. They are used when slower shutter speeds or greater apertures are wanted. Available in densities of 0.1, 0.2, 0.3, 0.6 and 0.9. A neutral gray density of 0.3 reduces the light intensity by one stop.

● **Color Compensating (CC) Filters:** These filters are used for correcting a color cast that is inherent either to the film or to its processing, or for changing the color

rendition of a photograph. They are available in the colors yellow (Y), magenta (M), cyan (C), blue (B), green (G) and red (R), and in color densities of 0.025, 0.05, 0.1, 0.15, 0.2, 0.3, 0.4 and 0.5.

● **Conversion Filters:** For changing the color quality of a light source to match the quality of the light for which a color film is balanced, or for rendering a scene in warmer (redder) colors or colder (bluer) colors. Blue filters bear the numbers 80 and 82, orange filters are numbered 81 and 85. Depending on their conversion strength, they are identified with an additional letter (A = weak through D and EF = strong).

● **Contrast Filters:** Are used in black-and-white photography for altering the rendition of tonal values. Colors can be reproduced in equivalent tonal values or in tonal values that differentiate better when there are several colors with similar tonal values in a scene. The basic rule is that the color of the filter is reproduced lighter and its complementary color is reproduced darker.

● **Graduated Filters:** Are used for altering the color or the density of a portion of the photograph. Graduated neutral density filters are available in three different density gradients: 0–0.3, 0–0.6 and 0–0.9. Graduated color filters are available with gradient densities of 0–0.6 in the colors yellow, blue, chocolate, sepia, tobacco, violet, coral pink, copper/yellow (sunset), blue/pink (twilight) and pink. Graduated neutral density filters also serve to reduce excessive contrast in a photograph.

● **Filters for Special Effects:** Used primarily in advertising and in portrait photography for achieving a particular pictorial effect. The most commonly used

special effect filters are soft-focus filters of various strengths whose flare characteristics produce a measured amount of pleasing unsharpness. Another type is the star filter, which imparts a four-, six- or eight-point star to every highlight in the picture.

● **Polarizing Screens:** Used for softening or eliminating reflections on non-metallic surfaces under certain conditions. Another application is a darker reproduction of a blue sky in a color photograph.

Sinar filters are made of high grade CR-39 plastic material, the same material that is used for eyeglasses and for other optical elements. Sinar Color Control Filters are supplied in two sizes: 100 x 100 mm (4 x 4"), 1 mm thick and 125 x 125 mm (5 x 5"), 3 mm thick. Their designations correspond to those of Kodak Wratten filters. With the extensive Sinar Adapter System, they can be used on virtually any large or medium format camera.

100 x 100 mm (4 x 4") filters can be used in front of the lens and also behind the lens. It is more advantageous to place them behind the lens, because this significantly reduces the loss of contrast that is caused by stray light. That is why Sinar offers special Filter Holder 547.41, which is designed to support up to three filters behind the lens. When a combination of several filters is used – especially behind the lens – focusing should be performed with the filters in place.

It is strongly recommended to use probes for film plane metering to accurately measure the light when filters are used.

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FILTER HOLDER 1/125 mm (5")

547.11

Filter Holder 1 supports a single 125 mm (5") filter.
 Several filter holders can be stacked and rotated in relation to each other. The back of the holder is designed as an attachment frame that will fit in every Sinar 4x5"/10x12.5 cm standard.
 Multipurpose Bellows 4x5"/10x12.5 cm 454.11 can be attached directly to Filter Holder 1/125 mm to serve as a lens hood.
 Adapter rings can also be attached to Filter Holder 1/125 mm. This makes the Sinar 125 mm Filter System excellent for use on any view camera, regardless of brand.



FILTER HOLDER 2/125 mm (5")

547.21

Filter Holder 2/125 mm (5") supports two 125 mm (5") filters or one Linear Polarizing Filter 547.91.750.
 Its other features are the same as those of Filter Holder 1/125 mm (5") above.



FILTER HOLDER 100 mm (4") FOR BTL SHUTTER

547.41

Filter Holder for use with Sinar Expolux or Sinar Auto Aperture behind-the-lens shutter. Easy to attach to the shutter without tools. Positions filters between the film plane and the lens, so that they are protected from stray light and reflections.
 Supports up to three 100 mm (4") filters.



FILTER HOLDER 100 mm (4") WITH TUBE

547.51

This Filter Holder 100 mm (4") supports up to three 100 mm (4") filters at a time. One or more lens hood tubes can be attached to its front. Supplied with three 25 mm (1") tubes.
 ● By means of adapter rings, this Filter Holder can be attached to nearly all lenses on 35 mm and medium format cameras and to many lenses on professional cameras as well (see Adapter Rings 547.81. ...).



ADAPTER RINGS 100 mm (4") and 125 mm (5")

547.81. ...

These Adapter Rings permit the attachment of Sinar Filter Holder 100 mm (4") 547.51 and Sinar Filter Holder 125 mm (5") 547.11 or 547.21 to practically all lenses with filter threads and filter bayonets, respectively.
 For sizes and order numbers, please see the table on page 7-6 entitled "Adapter Rings".



CAP FOR ADAPTER RING

547.81.002

Protective cap that can be placed on a lens with an adapter ring (for the 100 mm filter system) in place.
 Diameter: 96 mm (3³/₄").



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FILTER BOX 100x100 mm (4x4")

547.62.001

Made of wood, for the storage of 10 Sinar Color Control Filters 100 mm (4"). Filters are not included.

- Graduated filters require 100x125 mm (4x5") Filter Box 547.62.002.



547.62.001



547.62.002

FILTER BOX 100x125 mm (4x5")

547.62.002

Made of wood, for the storage of 10 Sinar Color Control Filters and Graduated Filters 100 mm (4").

Filters are not included.

FILTER CASE 125 mm (5")

547.71

The following accessories can be stored in this Filter Case:

- 1 Filter Holder 1/125 mm (5") 547.11 coupled to
- 1 Filter Holder 2/125 mm, plus
- 30 Filters 125 mm (5"), plus
- 6 Adapter Rings, plus
- 4 Graduated Filters, plus
- 1 Cleaning Set.



WALLET FOR FILTERS 100 mm (4")

547.72

The following filters can be stored in this wallet:

- 4 Graduated Filters 100x125 mm (4x5")
- 18 Filters 100 mm (4").



FILTER CLEANING SET

547.79

Sinar Color Control Filters should only be cleaned with this special solution. Other solutions may cause their surfaces to become dull.

Consists of:

- 1 bottle of cleaning fluid
- 1 cleaning cloth.



SWIVELING LINEAR POLARIZING FILTER

546.31

Rotating and swiveling linear polarizing filter with a diameter of 110 mm (4 1/2"). Can be mounted on one of the Rods of 11 cm (4 1/2"), 16 cm (6 1/4") and 25 cm (10") length (see page 3-14).

- Does not require any further filter holders.



GRADUATED FILTERS (Center Filter)

440.99.214 - 244

Concentrically graduated neutral density filters whose density diminishes from the center towards the transparent edge. Recommended for use with short-focal-length Sinaron-W lenses. For more information see page 4-8.



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CC FILTERS 125 mm (5")

547.91.103 – 650

Color Compensating Filters for Sinar Color Control Filter System 125 mm (5"). Available in the colors cyan, magenta, yellow, red, green and blue in the densities 0.025, 0.05, 0.10, 0.15, 0.20, 0.40 and 0.50.

For order numbers see table on the right.

CC FILTERS 100 mm (4")

547.92.103 – 650

Color Compensating Filters for Sinar Color Control Filter System 100 mm (4"). Other features are the same as those of CC Filters 125 mm (5").



Filter 125



Filter 100

ND FILTERS 125 mm (5")

547.91.010 – 090

Neutral gray filters for the Sinar Color Control Filter System 125 mm (5"). Available in the densities 0.1, 0.2, 0.3, 0.6 and 0.9.

For order numbers see table on page 7-5.

ND FILTERS 100 mm (4")

547.92.010 – 090

Neutral gray filters for the Sinar Color Control Filter System 100 mm (4"). Other characteristics are the same as those of ND Filters 125 mm (5") above.

CTC FILTERS 125 mm (5")

547.91.801 – 853

Blue and orange conversion filters for the Sinar Color Control Filter System 125 mm (5").

For available types and Order Numbers, please see the table on page 7-5.

CTC FILTERS 100 mm (4")

547.92.801 – 853

Blue and orange conversion filters for the Sinar Color Control Filter System 100 mm (4").

Other characteristics are the same as those of CTC Filters 125 mm (5").

Color Correction Filters

Abbreviated Designation	Density / Color	Order Number (100 mm/4")	Order Number (125 mm/5")	Exposure Compensation in f-stops (approx.)
CC025C	0.025 Cyan	547.92.103	547.91.103	0
CC05C	0.05 Cyan	547.92.105	547.91.105	+ 1/3
CC10C	0.10 Cyan	547.92.110	547.91.110	+ 1/3
CC15C	0.15 Cyan	547.92.115	547.91.115	+ 1/3
CC20C	0.20 Cyan	547.92.120	547.91.120	+ 1/3
CC30C	0.30 Cyan	547.92.130	547.91.130	+ 2/3
CC40C	0.40 Cyan	547.92.140	547.91.140	+ 2/3
CC50C	0.50 Cyan	547.92.150	547.91.150	+ 1
CC025M	0.025 Magenta	547.92.203	547.91.203	0
CC05M	0.05 Magenta	547.92.205*	547.91.205	+ 1/3
CC10M	0.10 Magenta	547.92.210*	547.91.210	+ 1/3
CC15M	0.15 Magenta	547.92.215	547.91.215	+ 1/3
CC20M	0.20 Magenta	547.92.220*	547.91.220	+ 1/3
CC30M	0.30 Magenta	547.92.230*	547.91.230	+ 2/3
CC40M	0.40 Magenta	547.92.240*	547.91.240	+ 2/3
CC50M	0.50 Magenta	547.92.250	547.91.250	+ 2/3
CC025Y	0.025 Yellow	547.92.303	547.91.303	0
CC05Y	0.05 Yellow	547.92.305	547.91.305	0
CC10Y	0.10 Yellow	547.92.310	547.91.310	+ 1/3
CC15Y	0.15 Yellow	547.92.315	547.91.315	+ 1/3
CC20Y	0.20 Yellow	547.92.320	547.91.320	+ 1/3
CC30Y	0.30 Yellow	547.92.330	547.91.330	+ 1/3
CC40Y	0.40 Yellow	547.92.340	547.91.340	+ 1/3
CC50Y	0.50 Yellow	547.92.350	547.91.350	+ 2/3
CC025R	0.025 Red	547.92.403	547.91.403	0
CC05R	0.05 Red	547.92.405	547.91.405	+ 1/3
CC10R	0.10 Red	547.92.410	547.91.410	+ 1/3
CC15R	0.15 Red	547.92.415	547.91.415	+ 1/3
CC20R	0.20 Red	547.92.420	547.91.420	+ 1/3
CC30R	0.30 Red	547.92.430	547.91.430	+ 2/3
CC40R	0.40 Red	547.92.440	547.91.440	+ 2/3
CC50R	0.50 Red	547.92.450	547.91.450	+ 1
CC025G	0.025 Green	547.92.503	547.91.503	0
CC05G	0.05 Green	547.92.505*	547.91.505	+ 1/3
CC10G	0.10 Green	547.92.510*	547.91.510	+ 1/3
CC15G	0.15 Green	547.92.515	547.91.515	+ 1/3
CC20G	0.20 Green	547.92.520*	547.91.520	+ 1/3
CC30G	0.30 Green	547.92.530*	547.91.530	+ 2/3
CC40G	0.40 Green	547.92.540*	547.91.540	+ 2/3
CC50G	0.50 Green	547.92.550	547.91.550	+ 1
CC025B	0.025 Blue	547.92.603	547.91.603	0
CC05B	0.05 Blue	547.92.605	547.91.605	+ 1/3
CC10B	0.10 Blue	547.92.610	547.91.610	+ 1/3
CC15B	0.15 Blue	547.92.615	547.91.615	+ 1/3
CC20B	0.20 Blue	547.92.620	547.91.620	+ 2/3
CC30B	0.30 Blue	547.92.630	547.91.630	+ 2/3
CC40B	0.40 Blue	547.92.640	547.91.640	+ 1
CC50B	0.50 Blue	547.92.650	547.91.650	+ 1 1/3

* = Color Meter Filter Kit

Example: CC Filters for Fluorescent Illumination

Type of Fluorescent Lamp	Daylight Color Film	Tungsten Color Film
Daylight	40Y + 40M	30Y + 40M + 85B (CTC)
White	30M + 20C	50Y + 60M
Warm White	40M + 40C	40Y + 50M
Warm White Deluxe	30M + 60C	10Y + 10M
Cool White	30M	50R + 10R
Cool White Deluxe	10M + 20C	40Y + 20M

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Neutral Density Filters

Abbreviated Designation	Density/Color	Order Number (100 mm/4")	Order Number (125 mm/5")	Exposure Compensation in f-stops (approx.)
1ND	0.1 neutral	547.92.010	547.91.010	+1/3
2ND	0.2 neutral	547.92.020	547.91.020	+2/3
3ND	0.3 neutral	547.92.030	547.91.030	+1
6ND	0.6 neutral	547.92.060	547.91.060	+2
9ND	0.9 neutral	547.92.090	547.91.090	+3

SE FILTERS 125 mm (5")

547.91.750 – 758

Special effects filters for the Sinar Color Control Filter System 125 mm (5"). See the "Special Effects Filters" table on page 7-6 for types and order numbers.

SE FILTERS 100 mm (4")

547.91.750 – 758

Special effects filters for the Sinar Color Control Filter System 100 mm (4"). See the "Special Effects Filters" table on page 7-6 for types and order numbers.

Color Temperature Correction Filters

Abbreviated Designation	Color	Order Number (100 mm/4")	Order Number (125 mm/5")	Correction in MIRED**, Exposure Compensation in f-stops (approx.)	
80A	80A Blue	547.92.801	547.91.801	-131	+2
80B	80B Blue	547.92.802*	547.91.802	-112	+1 2/3
80C	80C Blue	547.92.803*	547.91.803	-81	+1
80D	80D Blue	547.92.804*	547.91.804	-56	+1/3
82	82 Blue	547.92.820*	547.91.820	-10	+1/3
82A	82A Blue	547.92.821*	547.91.821	-21	+1/3
82B	82B Blue	547.92.822*	547.91.822	-32	+2/3
82C	82C Blue	547.92.823*	547.91.823	-45	+2/3
81	81 Orange	547.92.810*	547.91.810	+9	+1/3
81A	81A Orange	547.92.811*	547.91.811	+18	+1/3
81B	81B Orange	547.92.812*	547.91.812	+27	+1/3
81C	81C Orange	547.92.813*	547.91.813	+35	+1/3
81D	81D Orange	547.92.814*	547.91.814	+42	+2/3
81EF	81EF Orange	547.92.815*	547.91.815	+52	+2/3
85	85 Orange	547.92.850*	547.91.850	+112	+2/3
85B	85B Orange	547.92.852	547.91.852	+131	+2/3
85C	85C Orange	547.92.853*	547.91.853	+81	+1/3

* = Color Meter Filter Kit
 ** = See page 7-7 for the table for the determination of the correct conversion filter.

COLOR METER FILTER KIT 100 mm (4")

598.92

Color Meter Filter Kit 100 mm (4") includes 10 Color Compensating Filters, 15 Conversion Filters and the Filter Cleaning Set. The 25 filters are stored in two protective filter files. Please see the "Color Meter Filter Kit" table for a full list of contents.

Color Meter Filter Kit

Components:	100 mm, Order Number 598.92
Container	Filter Wallet 547.72 (2x)
Filter Cleaning Set	Filter Cleaning Set 547.79
10 Color Correction Filters	2 Colors (Magenta, Green) in 5 Densities (0.05, 0.1, 0.2, 0.3, 0.4)
15 Conversion Filters	Blue (80B, 80C, 80D, 82, 82A, 82B, 82C) Orange (81, 81A, 81B, 81C, 81D, 81EF, 85, 85C)

BW FILTERS 125 mm (5")

547.91.703 – 735

Black-and-white contrast filters for the Sinar Color Control Filter System 125 mm (5"). For colors and order numbers see table "B/W Contrast Filters".

BW FILTERS 100 mm (4")

547.92.703 – 735

Black-and-white contrast filters for the Sinar Color Control Filter System 100 mm (4"). For colors and order numbers see table below.

Black-and-White Contrast Filters

Designation	Color	Order No (100 mm/4")	Order No (125 mm/5")	Applications
8Y	8 Yellow	547.92.703	547.91.703	Sky, clouds, vegetation green
25R	25 Red	547.92.704	547.91.704	Reduces haze, absorbs blue in infrared photography (color separation filter)
58G	58 Green	547.92.705	547.91.705	Darkens magenta and red (color separation filter)
47B	47B Dark Blue	547.92.706	547.91.706	Lightens blue (color separation filter)
1A	1A Skylight	547.92.710	547.91.710	Avoids blue shadows, absorbs ultraviolet
2B	2B Ultraviolet	547.92.715	547.91.715	Absorbs ultraviolet under 390 nm
16O	16 Orange	547.92.720	547.91.720	Contrast filter, darker rendition of the sky
38LB	38 Light Blue	547.92.725	547.91.725	Improved rendition of yellow and orange
11YG	11 Yellow-Green	547.92.730	547.91.730	Better tonal values in artificial light (portrait, vegetation)

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Special Effect Filters

Designation	Density	Order No (100mm/4")	Order No (125mm/5")	Applications
LP	0.4	546.31.000*	547.91.750**	Rotating and swiveling linear polarization filter, eliminates reflections; + 1 1/3
1SF	–	547.92.751	547.91.751	Soft focus filter
03D	–	547.92.756	547.91.756	Diffusion filter, mild soft focus
06D	–	547.92.757	547.91.757	Diffusion filter, medium soft focus
1D	–	547.92.752	547.91.752	Diffusion filter, strong soft focus
1F	–	547.92.753	547.91.753	Fog filter
44S	–	547.92.758	547.91.758	4-point star filter (4 mm / 5/32" thick)
46S	–	547.92.754	547.91.754	6-point star filter (4 mm / 5/32" thick)
48S	–	547.92.755	547.91.755	8-point star filter (6 mm / 7/32" thick)

* = See description on page 7-3

** = effective filter diameter: 110mm (4 3/8")



Adapter Rings

For Thread	Ord. No (100mm/4")	Ord. No (125mm/5")	Remarks
M40.5 x 0.5	547.81.050	547.81.035 ♦	On older lenses it is best to measure the inner diameter of the mount at the front element with a ruler and add 1 mm. Example: Ø 66 mm → Adapter Ring M67 x 0.75). ♦ Can also be used with the Filter System 100mm (4").
M49 x 0.75	547.81.051	547.81.036 ♦	
M52 x 0.75	547.81.052	547.81.037 ♦	
M55 x 0.75	547.81.060	547.81.044 ♦	
M58 x 0.75	547.81.053	547.81.038 ♦	
M62 x 0.75	547.81.054	547.81.047 ♦	
M67 x 0.75	547.81.055	547.81.039 ♦	
M72 x 0.75	547.81.061	547.81.045 ♦	
M77 x 0.75	547.81.056	547.81.040 ♦	
M82 x 0.75	547.81.057	547.81.041 ♦	
M85 x 0.75	547.81.062	547.81.046 ♦	
M86 x 1	547.81.058	547.81.042 ♦	
M95 x 1	–	547.81.043 ♦	
M100 x 1	–	547.81.019	
M105 x 1	–	547.81.020	
M110 x 1	–	547.81.021	
M112 x 1.5	–	547.81.024	
M120 x 1	–	547.81.022	
M127 x 1	–	547.81.023	
40.2mm Ø	547.81.579	–	Slip-on adapter rings for attaching filters to the back of a lens. Ø 42, 60 and 80 mm resp.
60.2mm Ø	547.81.587	–	
80.2mm Ø	547.81.595	–	
Hasselblad 50	547.81.069	–	For Hasselblad Ø 50 bayonet ring
Hasselblad 60	547.81.070	–	For Hasselblad Ø 60 bayonet ring
Hasselblad 70	547.81.072	–	For Hasselblad Ø 70 bayonet ring
Rollei	547.81.071	–	For Rollei 70mm filter thread.

GRADUATED FILTERS 125mm (5")

547.91.900 – 999

Graduated Filters for the Sinar Color Control Filter System 125mm (5"). Please see the "Graduated Filters" table for available colors and order numbers.

GRADUATED FILTERS 100mm (4")

547.92.900 – 999

Graduated Filters for the Sinar Color Control Filter System 100mm (4"). Please see the "Graduated Filters" table for available colors and order numbers.

Graduated Filters

Abbreviated Designation	Density	Order Number (100mm/4")	Order Number (125mm/5")	Color
Y.G.	0 – 0.6	547.92.903	547.91.903	Yellow Blue Chocolate Sepia Tabacco Violet Choral Sunset Twilight Pink Neutral Grey Neutral Grey Neutral Grey
B.G.	0 – 0.6	547.92.906	547.91.906	
Ch.G.	0 – 0.6	547.92.910	547.91.910	
S.G.	0 – 0.6	547.92.911	547.91.911	
T.G.	0 – 0.6	547.92.912	547.91.912	
V.G.	0 – 0.6	547.92.913	547.91.913	
C.G.	0 – 0.6	547.92.914	547.91.914	
Sunset	0 – 0.6	547.92.915	547.91.915	
Twilight	0 – 0.6	547.92.916	547.91.916	
P.G.	0 – 0.6	547.92.917	547.91.917	
3NDG	0 – 0.3	547.92.930	547.91.930	
6NDG	0 – 0.6	547.92.960	547.91.960	
9NDG	0 – 0.9	547.92.990	547.91.990	

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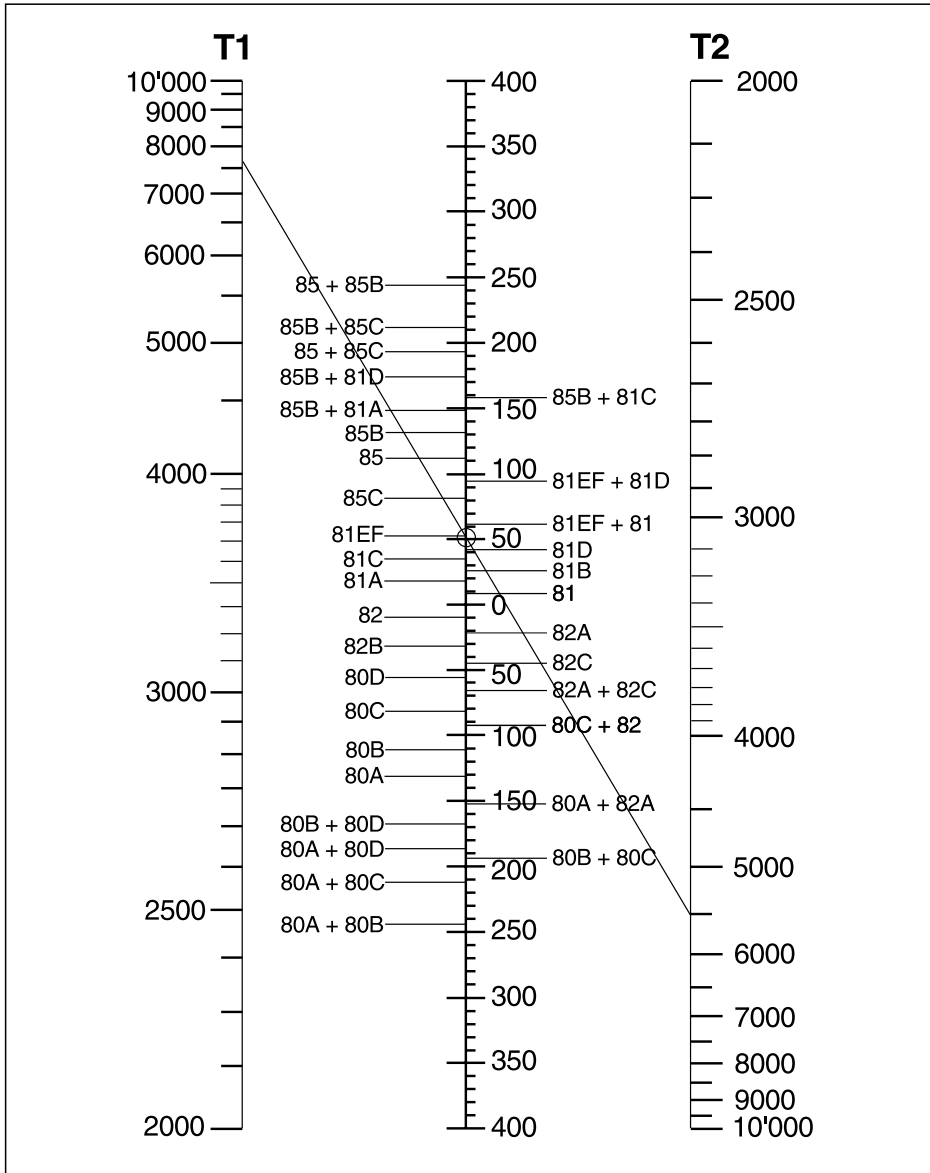


Table for the determination of the correct conversion filter

Place a ruler from the left column (T1: color temperature of the light source) to the right column (T2: color sensitization of the film). The required conversion filter can then be read where the ruler's edge crosses the center column. More information on this subject can be found in the book "Creative Large Format, Volume 1: Basics and Applications". (See page 8-2 of this catalog).