



Welcome to Schneider Optics

Schneider Optics, a U.S. subsidiary of acclaimed German lens maker Schneider Kreuznach, represents a long history of extraordinary lenses and filters for many industries including still photography, television broadcasting, cinematography and digital projection. It's no wonder Schneider filters for motion pictures and digital cinematography are the finest in the industry.

Consistent Precision

Diamond cut from crystal-clear, water-white optical glass, Schneider filters are ground and polished to a precise flatness and plane-parallelism (exact parallel relationship between front and back filter surfaces). Then, to ensure perfection, this is verified by a laser interferometer. Schneider filters are then checked with a densitometer for consistent density, and tested with a spectrophotometer for proper light transmission. It's due to this ultra-high consistency, that allows cinematographers to swap like filters mid-shoot with no discernible variation in color or effect. What's more, the unprecedented purity, color saturation and repeatability of Schneider filters virtually eliminates the need for lab color timing correction.

Ultra Durability

Schneider filters stand up to the most rigorous demands on set or location. Many feature Schneider's specially formulated hard anti-reflective (AR) coating to resist flaking, peeling and scratching. This proprietary coating also reduces light loss and flare to less than 1% per surface, compared to untreated glass that has a light loss of 4% per surface.

Schneider screw-on filters feature virtually jam-proof brass precision mounting rings, while unmounted Schneider laminated filters are protected against delamination and edge-chipping by Schneider's unique Edge Seal, which also reduces edge reflection and edge flare.

Professional Sizes for Film & Digital

Schneider filters are available in popular sizes including 4"x4", 4"x 5.650" (Panavision size), 5"x5", 5.65"x 5.65", 6.6"x 6.6" and 138mm rounds. For more information or additional sizes, visit us online.

www.schneideroptics.com

Classic Soft™



Application: Blend small wrinkles and blemishes, while maintaining overall sharp focus to conceal the use of a softening filter. Greater strengths (1, 2) can add a mood to the scene by causing highlights to glow softly.

Schneider has developed a subtle and effective softening filter that can be used freely without fear of compromising the high quality of contemporary lenses. Schneider Classic Soft filters are made possible by state-of-the-art optical technology, and a proprietary Schneider manufacturing technique. In the normal range of exposure, this filter imparts only a closely confined, very subtle glow to highlights. If large amounts of over-exposure exist in a scene, like a blown window, Classic Soft filters add a stylish glow that keeps the scene's contrast under control, while adding a romantic look.

As with all Schneider Optical Glass filters, Classic Soft filters are designed for use in front of long lenses, singly or in combination, for an even greater range of creative control.

Extreme Consistency

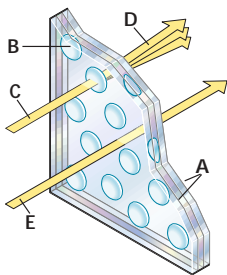
Classic Soft filters are manufactured to Schneider's renowned standards so same strength filters can be switched between A and B cameras, or lost filters can be replaced, with no discernable difference in scene effects.

Sizes: 4"x 4", 4"x 5.650" (Panavision size), 6.6"x 6.6" plus 138mm, 4-1/2" & 48mm Rounds.

Strengths: 1/8, 1/4, 1/2, 1, 2

The Secret of In-focus Diffusion™

Hundreds of Micro-Lenslets™ arrayed within each Schneider Classic Soft filter provide a precisely controlled soft image that is overlaid on a sharp, in-focus image. The number of Micro-Lenslets per square inch determines the image-blending effectiveness of each Classic Soft filter. This combination diffuses the image while maintaining overall sharp focus.



Schneider Classic Soft filters are manufactured using optical glass that is diamond cut, precision ground and polished to ensure uniformity and consistency. Sandwiched

between two pieces of this optical glass (A) are hundreds of precision Micro-Lenslets (B). During use, image light (C) that passes through each Micro-Lenslet is only slightly refracted (D), while light (E) passing between Micro-Lenslets is unaffected.

Classic Soft filters are tested with a laser interferometer to ensure exact flatness and the parallel relationship between both sides.



Without Filter

Also available

Warm Classic Soft™

Application:

For a subtle warming effect and in-focus diffusion, without filter stacking.

Schneider Warm Classic Soft combination filters provide every feature of both the Classic Soft and 81-One, in a single filter.

Sizes: 4"x 4", 4"x 5.650" (Panavision size), 6.6"x 6.6" plus 138mm, 4-1/2" & 48mm Rounds.

Strengths: 1/8, 1/4, 1/2, 1, 2

Diffusion Filters

Generally, diffusion falls into one of three main categories:

1. Image softening filters.

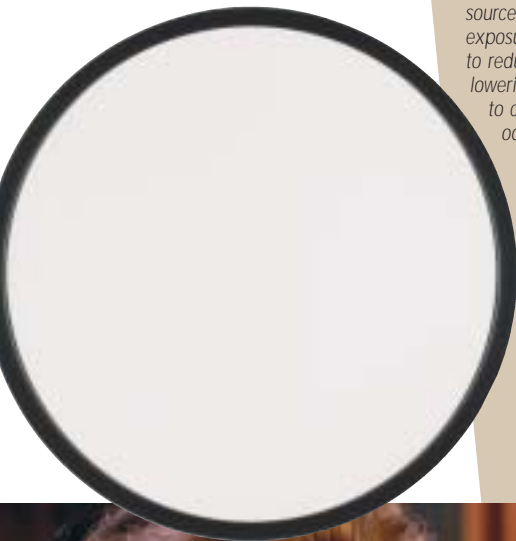
Primarily affect resolution. Act cosmetically to hide wrinkles & blend blemishes on actors.

2. Black fogging filters.

Low cons and other filters that raise the exposure of black levels.

3. White or highlight-flaring filters.

Put a halo around blown windows, light sources, or areas of high exposure. Can also be used to reduce picture contrast by lowering white exposure, and to create romantic or period looks.



Photos by Joel Lipton

With Classic Soft 1/2

Black Frost™

Application: A fine black mist flairs highlights, tones down contrast, while retaining rich blacks. Used primarily for styling & mood modifying. Depending on the strength, they subtly enhance a scene without fear of image degradation or reduction of black saturation.

Black Frost filters enable cinematographers to capture blacker blacks than possible with other filters. Shooters achieve a unique image styling that can be applied freely, without fear of having scenes appear heavy-handed.

Thanks to proprietary Schneider design and manufacturing techniques, Black Frost filters contain thousands of MicroPore™ particles, which introduce precise amounts of light diffraction while controlling stray light and flare—like never before.

MicroPore particles control the degree of diffusion in a predictable and repeatable manner. By eliminating excessive light scatter and veiling glare associated with other makes, Black Frost filters enable extraordinary control and convenience.

Black Frost filters can be used in front of long lenses, alone, or combined with other Schneider filters.

Sizes: 4"x 4", 4"x 5.650" (Panavision size), 6.6"x 6.6" plus 138mm, 4-1/2" & 48mm Rounds.
Strengths: 1/8, 1/4, 1/2, 1, 2



Warm Black Frost™

Also available

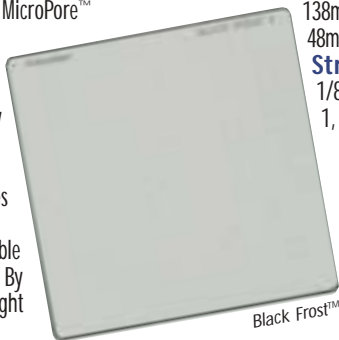
Warm Black Frost™

Application: For the Black Frost effect plus a touch of added warmth, without requiring stacking space.

The Warm Black Frost combination offers the same features as the Schneider Black Frost plus the 81-One in a single filter.

Sizes: 4"x 4", 4"x 5.650" (Panavision size), 6.6"x 6.6" plus 138mm, 4-1/2" & 48mm Rounds.

Strengths: 1/8, 1/4, 1/2, 1, & 2.



Black Frost™



Without Filter

White FrostTM

Application:

A fine white mist lowers contrast and flairs highlights, while *White FrostTM* creating a dreamlike effect. Doesn't effect image resolution or color reproduction. Used for picture styling and mood modifying.

White Frost filters are useful for adding a halo around light sources, blown windows, or other areas of high exposure. They can also reduce picture contrast by lowering white exposure, and can help create a romantic or period look.

Depending on the strength chosen, they enhance a scene, subtly or strongly. For a soft, romantic look, a White Frost filter can be combined with a Schneider Classic Soft.

Sizes: 4"x 4", 4"x 5.650"
(Panavision size), 6.6"x 6.6" plus
138mm, 4-1/2" &
48mm Rounds.

Strengths:
1/8, 1/4, 1/2, 1, 2



White FrostTM

LowCon 2000TM

Application: To mute the excessive contrast and spread light into shadow areas. Can desaturate a scene for artistic mood. Lower strengths can be used to take the high contrast edge off today's lenses.

Unlike similar filters, LowCon 2000 filters reduce black contrast without reducing resolution or muddying the image.

Sizes: 4"x 4", 4"x 5.650"
(Panavision size), 6.6"x 6.6"

Strengths: 1/8, 1/4, 1/2, 1, 2

DigiconTM

Application: For a "filmic look" when shooting with digital cameras. When used in front of the lens, optically raises black levels while lowering highlights.

By compensating with in-camera gamma settings, a higher dynamic range can be recorded than the camera alone can achieve. The result is more detail in highlights & shadows with no effect on resolution & no color shift. Highlight areas remain clean and halo-free. May be used on a 35mm cine camera to approximate the look of a lower contrast film stock.

Sizes: 4"x 4",
4"x 5.650"
(Panavision size),
6.6"x 6.6"

Strengths:
1/8, 1/4, 1/2, 1, 2

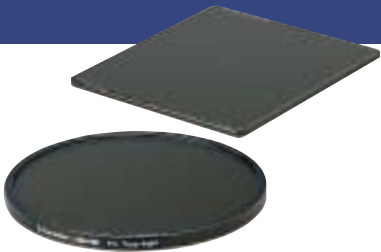


DigiconTM



Photos by Joel Lipton

True-Pol® Polarizing Filters



Applications: Low light such as indoors or night requiring elimination of glare and reflections off surfaces like car and storefront windows.

They're unmatched in ability to:

- Reduce glare & unwanted reflections
- Saturate colors
- Deepen blue skies
- Improve contrast
- Penetrate haze

True-Pol® Linear Polarizer

The most effective polarizer made for cine and electronic cameras, Schneider True-Pol filters have an extinction ratio of ER 374, twelve times more effective than other such filters!

True-Pol filters utilize polarizing film which is laminated between two pieces of Schneider's crystal-clear, water-white optical glass. The filter is protected against edge-chipping and delamination by Schneider's unique Edge Seal process, which also reduces edge-reflections and flare.

The absolute clarity of the glass combined with advanced polarizing material make True-Pol filters particularly useful on demanding scenes, like shooting through windshields in rigged-vehicles. Cinematographers report that True-Pol filters capture more color saturation, wider tonal range and greater contrast inside the car.

Sizes: 4"x 4", 4"x 5.650" (Panavision size), 5.65"x 5.65", 6.6"x 6.6" and rounds in Series 9, 4-1/2", 138mm, 6" 9-1/2", 40.5 & 48mm.

One-Stop Linear Polarizer

While the standard True-Pol is 1-3/5 stops, the One-Stop Linear Polarizer significantly reduces reflections while reducing available light by just one stop.

Sizes: 4"x 4", 4"x 5.650" (Panavision), 6.6"x 6.6". Special orders for 6", 138mm, 4.5", & 9.5" rounds as well as 40.5mm & 48mm threaded behind-the-lens filters (with anti-reflection multi-coating)

Screw-on Polarizers for Video Lenses

The Top-Pol and Kaesemann Pol employ Schneider's brass mounting rings to virtually eliminate jamming on the lens barrel. ENG camera operators, concerned with vignetting during wide-angle operation, may be interested in Schneider's Slim-Line circular polarizers, part of Schneider Optics B+W filter line. See www.schneideroptics.com



The most convincing performance test of a polarizing filter is achieved by overlapping two and shining a light through the pair. When one filter is turned and the other is held stationary, the density of the two filters should go from slightly gray to almost black. The more light passing through the filters at maximum density, the weaker the polarizing effect.

For maximum color saturation when filming an actor or darkening blue skies, the polarizer and lens-subject axis should be positioned 90 degrees from the sun or light source.

When reducing glare and reflections in a window scene, it is recommended to position the lens-polarizing axis approximately 34 degrees to the window.

Without True-Pol



With True-Pol



Circular True-Pol[®] for Video Assist

Application: To prevent viewfinder black-out on cameras which employ polarizing elements in the beam-splitters of the viewing system, like Arriflex 435 and MovieCam Compact.

Camera beam splitters send light in two directions: to an eyepiece and to a video tap. Light in a camera's viewing system can become polarized, and when a standard (linear) polarizing filter is attached to the lens, the light becomes cross polarized. This hinders visibility and can create total blackout of the viewing image and/or the video tap.

Schneider Circular Polarizers employ a two-layer design to prevent blackout. The first layer is composed of the same polarizing substance used in all True-Pol filters. The second layer is composed of a 1/4-wave retarder plate to prevent cross-polarization.

To ensure correct placement on the lens barrel, Schneider clearly marks the outer surface of Circular True-Pol filters.

Sizes: 4"x 4", 4"x 5.650" (Panavision), 5"x 5", 5.65"x 5.65", 6.6"x 6.6" and 138mm Round



Without polarizing filter



With polarizing filter



Without True-Pol



With True-Pol

Polarizers are Versatile Tools

Polarizers are commonly used to control glare on water and to allow the camera to see below the surface. They are also used to reduce glare on car bumpers and control reflections on plate-glass windows. Polarizers are so versatile they can also perform the opposite functions. Some use polarizers to increase or enhance reflections, simply by changing the filter's setting.

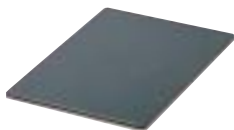
Ideal for:

- Darkening skies for dramatic impact. While graduated neutral density filters can also be used to achieve this effect, the need to position their transition line accurately precludes their use in many applications. Polarizers do not suffer from this limitation.
- Suppressing reflections & capturing truer color when filming actors through a windshield and from other rigged-car camera positions.
- Greatly adding to the drama and appeal of the shot when shooting food (particularly meat or liquids).
- Increasing the color saturation of any object with a glossy surface.

Neutral Density Filters

Application: Control exposure or depth of field under various lighting conditions without affecting color or contrast. They:

- Permit use of high-speed film in bright lighting conditions
- Diminish distracting backgrounds, by allowing the use of wider apertures to reduce depth of field as required to throw the background out of focus while maintaining subject focus
- Help control of the amount of light reaching the film without relying solely on the lens aperture
- Graduated Schneider ND filters enable for even exposure of an unbalanced lighting situation.

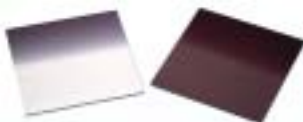


Absorptive Neutral Density Filters

Schneider Neutral Density (ND) filters are made in a full range of densities (strengths), including ND.3, ND.6, ND.9 & ND1.2, which provide exposure reductions of one, two, three and four stops, respectively.

Only Schneider Absorptive ND filters are a laboratory precise neutral gray. Each filter is made of two pieces of Schneider's crystal-clear optical glass, which allows for the transmission of the truest possible attenuated light. To prevent edge-chipping & delamination, they feature Schneider's proprietary Edge Seal.

Sizes: Series 9, 4-1/2", 138mm Round, 4"x 4", 4"x 5.650" (Panavision). Also in round screw-on rear mount 40.5 & 48mm
Strengths: ND.3, ND.6, ND.9, ND1.2



ND Combo Grads

Application: Help balance exposure and/or compensate for the limited dynamic range of digital cameras. Add two stops of ND to control overexposure of the sky or exposure of a scene from side to side. For example, a scene looking down a city street with buildings on one side in direct sunlight and shaded buildings on the other. The same technique can be applied indoors when a window or doorway blows out. For more of a film look, the cinematographer can decrease depth of field by shooting wide open.

The ND combo combines a solid neutral density filter (0.3, 0.6, 0.9, 1.2) with a soft edge 0.6 ND. In all densities, the additional soft edge is two stops more than the lower half of the filter.

Size: 6.6"x 6.6"

Strength Combinations:

ND 0.3/0.9, ND 0.6/1.2, ND 0.9/1.5, ND 1.2/1.8

Neutral Density Filter Exposure & Light Transmission		
ND	Transmission	Exposure Stops
0.1	80%	1/3
0.2	63%	2/3
0.3	50%	1
0.4	40%	1 1/3
0.5	32%	1 2/3
0.6	25%	2
0.7	20%	2 1/3
0.8	16%	2 2/3
0.9	13%	3
1.0	10%	3 1/3
1.2	6%	4
2.0	1%	6 2/3
3.0	0.1%	10
4.0	0.01%	13 1/3

ND filters can be used to soften backgrounds.





85 ND Combo Grads

Application: Outdoors when using 32-34K film stocks that require an 85 color correction filter.

Schneider starts with an 85 ND Combo Grad (a solid neutral density filter (0.3, 0.6, 0.9, 1.2) combined with a soft edge 0.6 ND) then adds an 85 color correction filter over the entire filter. Effectively combining three filters into one, 2-slots are saved in the matte box, preventing degradation caused by excessive filter stacking.

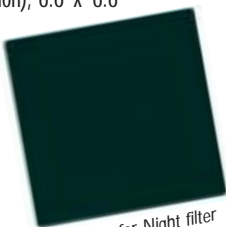
Size: 6.6"x 6.6"

Day for Night

Application: For a believable nighttime look.

The Day for Night combines Neutral Density and a slight aquamarine blue to simulate moonlight conditions. Total stop loss for the filter is 4 stops.

Sizes: 4"x 4" & 4"x 5.650" (Panavision), 6.6"x 6.6"



Day for Night filter

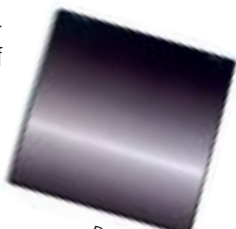
Dual Grad

Application: To control exposure and/or depth of field for 2 different areas of the frame. Ideal for cars shoots to neutralize the sky above the vehicle & the foreground below.

This unique filter offers a clear area separating 2 graduated ND attenuator sections. One section covering 2/3 of the glass graduates from 4 stops to the central clear, while the smaller 1/3 goes from 2 stops at the edge to the clear section.

Size: 6.6"x 6.6"

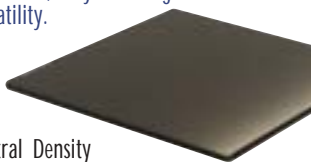
Strengths: ND 1.2 up / .6 Down



Dual Grad

Neutral Density Attenuating Filters

Application: Schneider Neutral Density (ND) Attenuators are designed to control overall exposure and/or depth of field under various lighting conditions, without affecting color or contrast. In addition to permitting the use of high-speed film in bright lighting conditions, they offer significant versatility.



Neutral Density Attenuators diminish distracting backgrounds by permitting the use of wider lens apertures, thereby reducing depth of field. Conversely, these ND Attenuators can be used to properly expose varying light levels within a given frame. They allow the amount of light reaching the film to be controlled without relying solely on the camera aperture. ND Attenuators are available only in the 6.6"x 6.6" format.

As with all Schneider filters, Neutral Density Attenuators are made using the finest crystal-clear, water-white optical glass and are precision engineered with unparallel smoothness, uniformity and consistency. ND Attenuators can be used alone or in combination with other Schneider filters with no degradation of image quality.

Sizes: 6.6"x 6.6".

Strengths: ND 1.2 and ND.6

Color Correction Filters

Color Correction filters change the color content of the light to match the color response of the film and permit the user to creatively modify color in subtle ways.

Encompassing a wide range of colors and densities, color correction filters are categorized into three main groups: Color Conversion, Light Balancing and Color Compensating. Each can create a wealth of practical color-temperature corrections and creative color effects.

85 & 81EF Color Conversion

Application: The 85 is primarily used to correct the color of tungsten balanced film when shooting in daylight. The 81EF helps penetrate light fog and eliminates the strong blue tone & haziness produced by UV light. The 81EF reduces blue tones in shadow areas without causing the look of an overcast sky. An 81EF can be combined with an 85, to achieve over-correction resulting in a warm look.

The 85 remains the industry's most commonly used color conversion filter. Schneider strictly adheres to Kodak Wratten color standards.

Sizes: Series 9, 4-1/2", 138mm, 4"x 4", 4"x 4.560" (Panavision size), 6.6"x 6.6", 138mm Round



Schneider 85 & 81EF filters can be used alone or combined.

Tungsten balanced film without a Schneider 85 filter.



Schneider's 81 Series For Skin Tones

Application: The 81-Two is used to accentuate skin tones for a warmer appearance. For a subject with darker skin tones, the 81-One is more appropriate. Ideal for romantic close-ups, the 81 Series can be combined with softening filters.

Schneider's 81-One and 81-Two warming filters were born from the 81-A. Both filters are designed to add warmth to skin tones and reduce excessive blue in outdoor open shade.

Sizes: Series 9, 4-1/2", 138mm, 4"x 4", 4"x 4.560" (Panavision size), 6.6"x 6.6" and 138mm Round



Tungsten balanced film with a Schneider 85 filter.



Enhancing Filters

Application: Improves the color saturation of reds, oranges, and earth-tone colors such as rust, brown and amber.

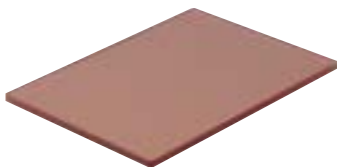
The range of colors improved by the Schneider Enhancing filter (made from didymium glass) makes it popular for use on autumn foliage and brownish-red scenic compositions, such as those found at the Grand Canyon. It is also the filter of choice for intensifying the red in objects such as tomatoes, cherries, strawberries and fire engines. Schneider Enhancing filters are readily available in all sizes for motion picture and video matte boxes.

For more dramatic and exciting effects, a Schneider Enhancing filter can be combined with a polarizing filter.

Sizes: Series 9, 4-1/2", 138mm, 4"x 4", 4"x 4.560" (Panavision size), 6.6"x 6.6" and 138mm Round



Combining Schneider's Enhancing filter with a True-Pol polarizer intensifies virtually everything in sight.



Combination Filters

Application: When more filter effects are desired than can be fit in a two or three slot matte box, combination filters make it possible.

Blending two or more filter effects into one filter makes it possible to have less glass in front of the lens—an advantage when using several filters simultaneously.



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Schneider ND.6

Schneider 85ND.6

that an 85ND.6 Combination filter will produce an the results of stacking separate 85 & ND.6 filters.

Schneider's 85 Neutral Density combination filters are precision ground and polished to a perfect flatness and parallel thickness, and feature Schneider's unique Edge Seal, which prevents edge-chipping and delamination, and also reduces edge-reflections and flare.

Schneider offers several other combination filters including the 85/True-Pol, 81EF/True-Pol, Warm Classic Soft and Warm Black Frost.

Sizes: Series 9, 4-1/2", 138mm, 4"x 4", 4"x 4.560" (Panavision size), 6.6"x 6.6" and 138mm Round

Without enhancing filter



With enhancing filter



Corals

Application: To warm cool lighting situations such as overcast days and scenes in open shade.

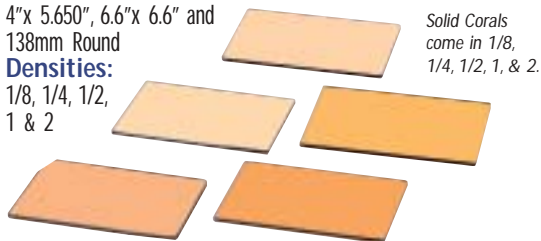
Varying strength Schneider Coral filters can be used to achieve the same degree of apparent warmth under different light conditions. This makes them particularly useful for maintaining consistent color balance throughout an entire day of shooting, or to create a sunset or dawn effect during the day. Can be used to under-correct a scene for an excessively blue look adding drama, and can also be used as warming filters for other dramatic effects.

Schneider Coral filters may be used alone or in combination with other color correction filters. Cinematographers will often spice up a scene by combining an 85 with a Coral #2, to add warmth.

A complete set of Schneider Coral filters offers the ability to control most outdoor lighting situations. Because Schneider filters are crafted with supreme consistency, same-number Corals can be swapped mid-shoot without discernible variation in color or effect.

Sizes: Sizes: 4"x 4", 4"x 5.650", 6.6"x 6.6" and 138mm Round

Densities: 1/8, 1/4, 1/2, 1 & 2



A Schneider Coral filter enhances orange foliage.

Magentas

Application: Correcting florescent lighting, music videos.

Schneider graduated Color Correction filters are rated 1, 2, 3. All Magenta filters are matched exactly to Kodak Wratten standards.

Sizes: Sizes: 4"x 4", 4"x 5.650", 6.6"x 6.6"

Densities: 10cc., 20cc., 30cc.



Solid Magentas come in 10cc., 20cc., 30cc



Magenta Grads are available in Soft (shown) or Hard Edge in densities of 1, 2, or 3.

A graduated Coral filter can enhance a sunset.



Sunset Series

Twilight Sunset

Application: Works with a wide range of focal lengths to enhance an existing sunset or create the illusion of a sunset during twilight, where none exists.



Only
Schneider's Twilight

Sunset filter offers intense color at the horizon unlike other sunset filters that have the highest color density at the top edge. That's thanks to Schneider's innovative new manufacturing technique which allows the selective application of color to a filter. The result? A more natural looking sunset.

Sizes: Sizes: 4"x 4", 4"x 5.650", 6.6"x 6.6"

Classic Sunset

Application: Works with a wide range of focal lengths to enhance an existing sunset or create the illusion of an flame orange sunset where none exists.

Schneider's Classic Sunset filter offers intense flame orange color that transitions to a soft gold gradient band across the center. The density at the darkest edge is 2 stops. The other half of the filter is clear.



Sizes: Sizes: 4"x 4", 4"x 5.650", 6.6"x 6.6"



Without a filter.



Same shot through a Schneider Twilight Sunset filter.



Without a filter.



Same shot through a Schneider Classic Sunset filter.

Solid & Grad Color Effects



New Sahara Gold*

Application: Especially useful in creating a rich warm scene, for an old Technicolor look. This filter approximates 3/4 the color correction value of an 85 filter. Can also replace an 81EF for a cool look. Holds skintones better than 81EF.



New Maui Brown

Application: Enhances browns and golds, gives depth to foliage. Lightest density #1 excellent for enhancing dark skin tones.



Amber (solid 3)

Application: Can simulate the effect of candlelight or a firelit scene.



Antique Suede (solid 1)

Application: Reduces greenish tint in complexion shadows. Outdoors it helps accentuate foliage.



Gold (solid 3)

Application: For an overall warming effect. Portrays healthy skintones & accentuates foliage.



Golden Sepia (solid 1)

Application: For a period look like in old photographs.



Chocolate (solid 2)

Application: Natural warming effect. Helps smooth transition between black & white complexions.



Tobacco (solid 2)

Application: For an old west period look.



Paradise Blue (solid 3)

Application: Adds vibrant color to washed out sky.



Sapphire Blue (solid 3)

Application: Adds indigo blue color.



Storm Blue (solid 2)

Application: Adds grey green color to ocean and sky for a stormy effect.

SOLIDS

Sizes: 4"x 4", 4"x 5.650", 6.6" x 6.6"

Densities: 1, 2, 3

(*Sahara Gold—Single Density only.)

Graduated Color Filters



Application: Add color to part of a scene where color may be weak or absent. Can also be used for color effects which contribute to the cinematic drama of a scene.

Schneider Graduated Color filters are part clear and part color. They are designed to be used in professional matte boxes, so that they are readily positioned at the exact angle required to create desired effects.

Graduated Color filters, designed to provide a wide range of photographic effects, work well with sky, foliage and skin tones. They can be combined with each other, or with other filters, to provide a virtually limitless range of breathtaking effects.

Schneider Neutral Density (ND) Grads can be used to balance exposure in uneven lighting situations or to increase color saturation in sky scenes, by lowering sky exposure.

Soft or Hard Edge

Schneider makes both soft-edge and hard-edge Graduated Color filters. Typically soft-edge filters are used with wide- to medium-angle lenses because these lenses have greater depth of field. Hard-edge filters are preferred for use with telephoto lenses or for bold transitions.

All Schneider Graduated Color filters perform beautifully, providing exactly the desired degree of color effect without calling undue attention to the transition of the filter itself. In fact, soft-edge Schneider Graduated filters have such a smooth transition from color to clear, that the point of transition is not readily visible even when using short focal-length lenses. This is often the filter of choice when shooting irregular horizons or city skylines.

Schneider Graduated Color filters feature crystal-clear, water-white optical glass, protected against edge-chipping and delamination by Schneider's unique Edge Seal, which also significantly reduces edge reflections and flare.

Sizes: 4"x 4", 4"x 5.650" (Panavision size) & 6.6"x 6.6". Schneider Graduated Color filters in Panavision size are available in horizontal (landscape) & vertical (portrait).



Hard-edge blend



Soft-edge blend



*Vertical
4"x 5.650"*



*Horizontal
4"x 5.650"*



No filter



Soft-edge blend



Hard-edge blend

Diopters

Application: Shorten the close-focusing distance of normal fixed focal length or zoom lenses. This allows the camera to focus closer to the subject and achieve a larger image size, while bringing out the sharpest details in even the tiniest subjects.

These high-quality close-up lenses require absolutely no exposure compensation. Schneider Diopters are made from the finest optical glass. They feature Schneider's hard, anti-reflective (AR) coating on both front and rear surfaces. This measurably reduces light loss and flare while helping to ensure proper color, contrast, and overall image quality. Screw-on Schneider Diopters are supplied with brass mounting rings, while drop-in models feature rugged black anodized aluminum rings. Schneider Diopters are protected by a unique mounting technique which ensures superb structural integrity and consistent long-term performance, even in the harshest production environments.

Sizes: Series 9, 4-1/2", 138mm and 6" Rounds

Strengths: For drop-in matte boxes: +1/2, +1, +2 and +3. For greater magnification, two Schneider Diopters can be combined.

Split-Field Diopters

Application: To enhance depth-of-field. Permit more of the scene to be in total focus simultaneously. Often used to increase depth of field in pictures shot with anamorphic lenses.

Schneider Split-Field Diopters are semi-circular, single-element close-up lenses mounted in precision-crafted metal rings. To prevent the optical element from rattling or coming loose, Schneider first fits the glass to the mount with great precision, and then locks it firmly in place with a state-of-the-art sealant. Selecting the proper Schneider Split-Field Diopter for your scene depends on:

- Diopter power
- Distance from the lens to the far subject
- Distance from the lens to the close-up subject

Sizes: Series 9, 4-1/2", 138mm and 6" Rounds

Strengths: +1/2, +1, +2, +3



No Diopter



+1/2 Diopter



+1 Diopter



Without Schneider Split-Field Dipter



With Schneider Split-Field Dipter

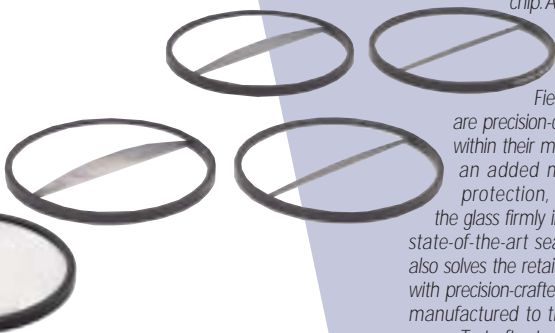
Is a Diopter a Filter or a Lens?

If you define a filter as being anything you add to a light path to alter the character of the image, diopters are filters. However, diopters are also lenses in their own right. They have a focal length, and they must transmit light without changing its quality characteristics. Diopters are made from lens elements which must be every bit as good as your primary lens or images will be degraded. In fact, since they are lenses used to enlarge image detail, diopters need to be even better than most primary lenses.

A Problem Solved

Split-diopters that fall out of their mounting rings have been a common problem for Directors of Photography. Chipped diopter lens corners and loosening retaining rings caused by changes in temperature and other rigors of production compound this problem. Schneider engineers closely examined filters having this problem and discovered that the trouble stems in part from a poor fit between the glass and the retaining ring. Additional problems are caused by poor tolerances in the threads of the retaining ring, which allows the filter to rotate and loosen, and then chip. Armed with this

knowledge, Schneider has created Split-Field Diopters that are precision-cut to fit perfectly within their mounting rings. As an added measure of protection, Schneider locks the glass firmly in place with a state-of-the-art sealant. Schneider also solves the retaining ring problem with precision-crafted metal rings manufactured to the highest tolerances. Test after test has shown that Schneider Split-Field Diopters stand up to the toughest demands.



+2 Diopter



+3 Diopter

138mm Achromat Diopters

Application:

Allow extremely close focusing with zoom or prime lenses. Attached to the primary lens, they allow the camera to focus closer to the subject to achieve a larger size image.

Schneider 2-element Achromat Diopters are precision optics specially designed for superior color performance. They also provide edge-to-edge sharpness with excellent color and contrast, and maintain sharp focus throughout the entire zoom range.

In addition to the benefits they provide during the filming of close-ups in live action scenes, these diopters are perfect for tabletop and miniatures, and cinematography of graphics or artwork.



These diopters feature Schneider's hard, anti-reflective (AR) coating. This dramatically reduces light loss and flare while helping to further ensure proper color, contrast and overall image quality.

Schneider Achromat Diopters are available singly or in sets of three. Single units and sets come in a rugged, hard carrying case with heavily padded interior compartment(s). Each Schneider Achromat Diopter has a molded rubber gripping surface, and is supplied with front and rear lens caps.

Strengths: +1, +2, +3



Single Achromat diopters come in individual, heavily padded cases.

Sets of +1, +2 and +3 strength come in rugged, heavily padded cases.



40.5/48mm Internal & Rear Mount Filters

Application: Schneider meets the exacting performance standards of lenses featuring behind-the-lens filter slots such as specially modified telephotos and periscopic relay systems made by a variety of manufacturers.

Schneider filters are precisely engineered to the exact thickness needed to focus these lenses easily. For example, with anything less than Schneider's calibrated filter thickness in your ultra-wide lens, the footage scale reads wrong and focusing becomes a chore. And, with anything less than Schneider filter

precision in your zoom lens, truly sharp focus may be impossible. In fact, Schneider filters are so consistent that refocusing is unnecessary even when filters are changed.

These filters are treated with our unique MaxTran™ Multi-coating, the world's first durable anti-reflection coating for laminated filters. It maximizes light transmission while reducing flare and improving color and contrast.

Unlike other internal filters, Schneider's manufacturing methods begin with optical glass. Each filter is diamond cut, ground and polished to an absolutely precise and uniform thickness. Then it is tested with a laser interferometer to ensure exact flatness and the parallel relationship between both sides.

FILTER TYPE	40.5mm	48mm	MULTICOATING	AVAILABILITY
True-Pol Polarizer	✓	✓	MaxTran	STOCK
85/True-Pol Polarizer	✓	✓	MaxTran	STOCK
One-Stop Linear Polarizer	✓	✓	MaxTran	STOCK
85 Circular True-Pol Polarizer	✓	✓	MaxTran	STOCK
Circular True-Pol Polarizer	✓	✓	MaxTran	STOCK
Neutral Density ND.3	✓	✓	MaxTran	STOCK
Neutral Density ND.6	✓	✓	MaxTran	STOCK
Neutral Density ND.9	✓	✓	MaxTran	STOCK
Neutral Density ND1.2	✓	✓	MaxTran	STOCK
Combination 85/ND.3	✓	✓	MaxTran	STOCK
Combination 85/ND.6	✓	✓	MaxTran	STOCK
Combination 85/ND.9	✓	✓	MaxTran	STOCK
Combination 85/ND1.2	✓	✓	MaxTran	STOCK
UV-410 Haze	✓	✓	MaxTran	STOCK
Color Correction 81EF	✓	✓	MaxTran	STOCK
Color Correction 85	✓	✓	MaxTran	STOCK
Color Correction 81-Two	✓	✓	MaxTran	STOCK
Clear Optical Flat	✓	✓	MaxTran	STOCK
*Diffusion 1/4, 1/2, 1, 2	✓	✓	MaxTran	SPECIAL ORDER

Every Schneider internal and rear-mount filter is manufactured with precision to the exact thickness required for sharp focus.

**Includes Classic Soft, Warm Classic Soft, Black Frost, Warm Black Frost, White Frost.*



Optical Flats

Application:

During stunts which can damage a lens, Schneider Optical Flats protect expensive front elements and other filters, while providing the truest image, free of unwanted color shifts.



Schneider optical flats are made of crystal-clear, water-white optical glass.

Made from Schneider's clear optical glass, these filters minimize or eliminate the need for laboratory color correction caused by filter variation. Both the front and rear surfaces of these solid-glass (non-laminated) filters receive Schneider's hard anti-reflective (AR) coating, which measurably improves light transmission.

Sizes: Series 9, 4-1/2", 138mm, 4"x 4", 4"x 5.650" (Panavision size), 6.6"x 6.6", 138mm Round

Schneider UV-410 Penetrates Haze

Application:

This ultraviolet-blocking filter effectively reduces or eliminates photographic haze in locations where the atmospheric conditions contain a heavy concentration of dust particles, water droplets and pollution.



Photographic haze – often found in mountainous or coastal regions and industrial areas – scatters light and produces a bluish cast causing film to render a lack of color, contrast and overall image quality. By filtering out ultraviolet light below 410 nanometers, the Schneider UV-410 blocks the blue cast, penetrates haze and permits the film to capture vivid colors and sharper detail. Fits all professional matte boxes.

Sizes: Series 9, 4-1/2", 138mm, 4"x 4", 4"x 5.650" (Panavision size), 6.6"x 6.6", 138mm Round



Without UV-410 filter



With UV-410 filter

Clear UV-Absorbing for Professional Video Cameras

In addition to protecting the front element of expensive video lenses, Schneider Clear UV-Absorbing filters provide quick, trouble-free on-and-off access with the lens or sunshade. Their precision brass rings are virtually jam-proof,



Slim-Line

Standard

even when it's necessary to remove a filter as you move from frigid outdoor conditions into heated buildings. Select from either single or multi-layer coatings.

Schneider Clear UV-Absorbing filters are also available in Slim-Line mounts to eliminate vignetting with wide angle lenses.

Sizes: 72mm, 77mm, 82mm, 86mm, 95mm and 105mm