Color Filter Reference

Color Filter Suggestions for End Users

Please be sure to always try to test colors prior to using them as skin tones, scene paint, and costumes as colors vary dramatically. The following are **suggestions** and not absolutes:

Warm Colors

Warm colors are used in stage lighting to suggest or simulate direct light, such as sunlight or the specific light source in a scene (table lamp, fire, gaslight). The warm colors are also primarily used to enhance or subdue the skin tones of the performers. As everyone's skin tone is made up of different colors (regardless of race), the colors should be tested by the designer to find the best "universal" color based on the group of skin tones that he or she is lighting for every show. Sometimes when extreme ranges of skin tones are lit, a "split gel" can be constructed to enhance both ends of the extremes. A good example is lighting a pale skinned, winter dwelling New Yorker that is performing a duet with a darker, tan skinned southern California resident. The same can be said for an African American actor in a scene with a fair skinned Norwegian. Things to watch out for are warms that have too much blue, green, or red in them.

Below is a list of suggested warms and their attributes. Again, remember to TEST! TEST! TEST!

Note: * denotes a "safe color" to use regardless of stage color composition.

*AP7050	Yellow/amber family. The standard in warm theater colors. Good for "tan" look. Can turn orange on thick make-up.
AP2140	Yellow/amber family. More yellows and less red than AP7050.
AP7300	Orange/amber family. More reds and oranges, favors pinks and blues. Fairly warm.
AP7400	Orange/amber family. Good for sunset warms. Brings out reds and pinks.
*AP7900	Pink family. A nice warm pink color that is very pale. Even color. A safe color.
AP8600	Pink/lavender family. Very pink color. Good on most colors except green. Cheery. Great on white costumes.
AP7100	Amber/tan family. Great for dark complexions. No blues. Mutes costume and scenic colors.

Cool Colors

Cool colors in stage lighting are used to suggest the blue of the sky in shadows when combined with the warm colors. They also simulate indirect or reflected light that shows up in shadows when outside or indoors. If a deeper cool color is used, the cool color, when used alone, can recreate a moonlit sky or a night sky if the script dictates the need.

Blues can have a high degree of different colors in them, and again, should be tested to see the "color shift" that will happen on the stage. Another consideration when choosing a blue color filter is the amount of lighting equipment that is available to the designer. If the theater has very limited equipment, a darker, deeper color will limit the overall illumination level of the stage so a lighter blue or lavender may be the best choice.

Suggested cool colors.

*AP2000	Blue/lavender family. A good safe color. Keeps all colors true.
AP4800	Primary blue family. Pale and greenish. Use with caution with some skin tones. Loves greens and reds in costumes.
AP4350	Primary blue family. Good middle blue color. Good on skin tones. Dulls greens and yellows.
AP4850	Blue/green family. A pale blue with green undertones. Good for "old skin" look. Dulls yellows and orange.
AP4450	Blue/green family. A richer blue. Reds "brown up". Sharpens lines.
AP4750	Blue/green family. A nice pale blue. Reds up a bit. Good to scenic paints.
*AP4650	Blue/lavender family. A pale blue, good even color, true skin tones.
AP4100	Blue/purple family. Heavy reds that do strange things to costume and scenic colors. A good effect color BUT use with caution!

Neutral Colors

A neutral color has both of the characteristics of warm and cool colors in them. The neutral color can be used with a warm color to be the cool and then with a cool color to be the warm. They are usually very kind to paint and costume colors as well. As I have said before – TEST! TEST! TEST! to find a good neutral color by combining them with the chosen warm and cool colors for a show.

Suggest neutral colors.

*AP3350	A good safe neutral with equal amounts of red and blue. Can be used by itself with a touch of warm color or cool color to create a very good general stage wash.
*AP3200	A bit lighter and has a bit more red than AP3350
*AP3400	A bit darker and has a bit more blue than AP3350

Primary Cyc Colors

These are used on striplights, cyc lights, or even floodlights to "wash" the cyclorama (large white wall or backdrop at the extreme back of the stage). By using various colors, the designer can suggest day sky, night sky, or stormy sky locations. Also by using other colors, they can suggest emotions such as anger (red), tranquility (light blue), or sunset (reddish-yellow). Using the RED-BLUE-GREEN primary colors at various intensities allows the designer to recreate, theoretically, any color in the spectrum. Obvious

examples are red plus green will create orange, blue plus green will create cyan (aqua), and all three primaries at full will create white light (not really but it's close). Many striplights already come with red, blue, and green "rondels" (aka roundels – NOT a 50's vocal group!)

Suggested cyc colors.

AP8350 Diva Red
AP1800 Red Diffusion
AP4250 Apollo Blue
AP1900 Blue Diffusion
AP5300 Apollo Green
AP1950 Green Diffusion

Diffusions

Diffusions are used to "soften" a hard focus on lights with gobos or hard shutter lines. They are also used to soften the lines of the subject that the light is focused on. These could be lines on the face of an older performer to hard shadows on scenery. Many lighting designers use diffusions in all ETC Source Fours and the newer ellipsoidals to soften the harder focus of the superior optics that are now available with coated lenses. The most commonly used diffusion for this purpose is AP1650 (equivalent to Lux 119 and Lee 443).

Neutral Density

Neutral density filters are used in photography and motion pictures but do have occasional application in theater lighting. Neutral densities are used to "dim down" a light when dimmers are not available. Apollo offers three neutral density filters – a .3 drop which drops the intensity of the light by approximately 30%, a .6 which drops the intensity by approximately 60%, and a .9 which drops the intensity by 90%. These filters also correlate to F-stops in photography (.3 = 1 F-stop; .6 = 2 F-stops; .9 = 3 F-stops).