

## ***TECH TIPS***

*An intermittent column about things you can do to improve your photography.*

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*This month's topic: The right color film for the job – Part II.*

In Part I of this article we examined the variables to consider in making film choices. These were slide or print, speed/granularity, chemistry/contrast/reciprocity, and daylight/tungsten. In Part II we will apply them to common photographic situations and consider appropriate film choices based on a consensus of reviews. For our purpose here, I suggest that general, landscape/nature, portraits, action (including photojournalism), low light, building interiors and copy work are categories that cover the majority of situations. I examined a number of magazines and web sites that conduct film reviews and found that in general, the following films are highly rated for the indicated uses.

General Use. If you tend to take only a few shots at a time and use your camera for a variety of subjects you need a workhorse film that can turn in good results under a variety of conditions.

In daylight-balanced print film Kodak Royal Gold 100 is the overwhelming first choice for general outdoor use and in-door use with flash. Its color reproduction, saturation, grain and contrast are all quite good. It produces nice skin tones. The ISO 200 and 400 variations are also good if the day is cloudy or the subjects are moving. This film has the added benefit of being easy to develop and therefore produces good results from almost any processor. Fujicolor Superia 200 is the second choice for general use.

In daylight-balanced slide film we have Fuji Astia 100 (professional) as the first choice. It is a fine-grain, low-contrast film that has wide exposure latitude (for a transparency film) and generates excellent skin tones and natural colors. It produces a “silky” look without “popping” colors. It is the opposite of highly saturated films and is often used for fine arts purposes. Fuji Sensia 100 is the consumer version of Astia 100. Kodak Ektachrome E200 (professional) is also good for general purposes, especially in lower light situations or where the subject is moving slowly. It pushes extremely well. One stop is essentially unnoticeable and two stops would only be detected in a very large print. It has moderate contrast and excellent natural color. It is not highly saturated. These films all work well in-doors with flash, too. Consider having a professional lab process professional films. Other labs are not set up for their subtleties.

Landscapes and Nature. This includes seascapes, cityscapes, still animal shots and most sky shots in that these subjects don't move. The 'not moving' part is critical because it allows us to use a slow film which means we have low granularity and the possibility of making larger prints. We can use a tripod, go to f16 or 22 for great depth of field and not worry about shutter speed.

In daylight-balanced print film we have Kodak Royal Gold 100, Fujicolor Superia 100 and Agfa's recently released pair of highly saturated print films, the professional Ultra 100 and its consumer counterpart Vista 100. The Fuji film is low-contrast and saturated, emphasizing the warm tones with a decided red and magenta shift. It is very sharp with almost no grain. The Agfa films are fine-grained, give dazzling color and still render decent skin tones.

In daylight-balanced slide film we have Fuji Velvia 50 (professional) if you want a narrow-latitude, high contrast, ultra-saturated film that "pops" colors and does green like nothing else. It loses shadow detail easily. Velvia was the choice of National Geographic photographers for many years. It can be pushed one stop but I don't like the results. It gets more contrasty. Do not use Velvia on humans unless they are in colorful clown make-up.

Fuji Provia 100F RDP III (professional) is one of the two highest-rated, highly saturated daylight-balanced slide films available today. It is finer-grained than Velvia but not quite as contrasty or saturated. Its extra stop is very useful. It pushes one stop without notice. Kodak Ektachrome E100VS (very saturated, professional) is the other of the two highest-rated, highly saturated daylight-balanced slide films. Its contrast is similar to Provia but it holds shadow detail a bit better than Provia and much better than Velvia. Its saturation level is between Velvia and Provia. It does the blue end of the spectrum better than Velvia. E100VS does not push as well as Provia. Kodak E100SW (slightly warm; professional film) is a compromise between natural and saturated films.

Kodak also offers Ektachrome E200 (professional film mentioned above for general use), which can be useful in nature situations where the light is low or the subject (or the photographer) is moving. I pushed it a stop and got excellent results when I photographed Crater Lake from a moving tour boat. Fuji Provia 200 & 400 (RDP III) are also rated well for landscape and nature work but are grainier than the ISO 100 version. I don't like them or their consumer cousins, Sensia 200 & 400. (Note the difference: Sensia 100 is the consumer version of Astia 100 while Sensia 200 and 400 are the consumer versions of Provia 200 and 400.) I'd push Provia 100F RDP III a stop instead of using the 200. I'd push Ektachrome E200 a stop instead of using Provia 400.

Portraits. Of course, the first consideration is daylight- or tungsten-balanced film. While professional studios have lights that can generate daylight temperature, most of us are going to be shooting our indoor portraits using either incandescent light or natural light from a window. (When combined with a reflector and/or fill-flash, this can be a very effective portrait technique.) Our other option is to shoot the portrait outside.

In daylight-balanced print film we have Kodak Portra 160 NC (professional, natural color). This low-contrast film has good grain, color and sharpness. It is said to “smooth out” skin tones, giving people a flattering, “glowing” look. We also have Fujicolor NPC 160. This professional daylight film is often used for commercial portrait and fashion work. It is sharper and more contrasty than Kodak Portra 160 NC. It also has a fourth emulsion layer that handles mixed light sources, including fluorescents. In tungsten-balanced print film we have Kodak Portra 100T (professional). It renders very true colors, excellent skin tones and has a very fine grain.

In daylight-balanced slide film we have Fuji Astia 100 or Sensia 100. (See above.) In tungsten-balanced slide film we have Kodak Ektachrome EPY 64T (professional) which is great for skin, chocolate and other silky-smooth items. One reviewer said this film makes regular people look like supermodels. If more speed is necessary Kodak offers a 160T version of this film. For the budget conscious it also has a consumer version of the faster film in its Elite Chrome 160T. Fujichrome 64T also has a fine grain, accurate color, good exposure latitude and reciprocity performance although the Kodak films in this category tend to be rated slightly higher.

Action (including photojournalism). We have a definite need for speed in shots of concerts and other performances, sports and some photojournalism situations. Either you or your subjects or both are moving, sometimes very fast. Night increases the need for speed in these shots.

In daylight-balanced print film we have Fujicolor Press 1600. This professional film has vivid, not “natural” color. It has high contrast and the grain can become prominent in large prints. It has the necessary speed for sports action and low-light concerts.

In daylight-balanced professional slide film we have Fuji Provia 1600 (RSP). The grain isn’t bad for such a fast film and its pattern is reminiscent of pointillist art. It is sharp for the speed. It is versatile because it was designed for pushing to 3200 or pulling to 800. It is good for night, high-speed and concert shots and renders natural color. In tungsten slide film the best choice is Kodak Ektachrome EPJ 320T (professional). It pushes up to two stops and handles the mixed lights of plays and concerts (where flash is often prohibited) quite well.

Low Light. This category would include candlelight shots (e.g., portraits) and such outdoor twilight, night and predawn shots as cityscapes, traffic light streams, neon signs at night and moonlit landscapes. Since these shots require long exposures (i.e., times of a few seconds or more), we must select film for its reciprocity failure characteristics. This is a tendency for film to need more time for a proper exposure than the meter indicates when dealing with extremely short or long exposure times. It also includes the tendency of some films to become more contrasty and shift colors during long exposures. Colors shift because the color emulsion layers experience reciprocity failure at a slightly different rate. In many cases a color correction filter is necessary to offset this shift.

In daylight-balanced print film the preferred choice is Kodak Royal Gold 25. It has ultra-fine grain and no reciprocity failure for up to two minutes of exposure. The other Kodak Royal Gold films (100, 200, 400) all need no exposure or filter adjustments up to 10 seconds. They are not recommended for longer exposures. I could find no tungsten-balanced print film with acceptable reciprocity characteristics.

While a few experts disagree (one can find expert disagreement in every field), super-saturated daylight slide films like Fuji Velvia and Kodak Ektachrome 100VS are generally not advised for low-light applications. There is far less color visible at night to saturate and the saturation film chemistry lends itself to reciprocity failure in shorter exposure times. For example, Velvia requires a +1/3 stop increase and a CC5M filter with exposures from 1-4 seconds and at exposures of 32-60 seconds it requires a +1 stop increase and a CC12.5M filter. Velvia is not recommended for exposures longer than 60 seconds. It needs the magenta filter to counter the increasing green cast it generates. (Never use it around florescent light, which has a green cast.) It also becomes more contrasty which is not good because it is already a high-contrast film.

The best slide films for low-light situations are Fuji Provia 100F RDP III in a daylight-balanced film and Kodak Ektachrome 64T EPY in a tungsten-balanced film. Provia 100F RDP III requires no adjustment for exposures of up to 4 minutes. From 4 minutes to 8 minutes it requires a +1/3 stop increase and a CC2.5G filter. It is not recommended for exposures exceeding 8 minutes. Faster Fuji slide films offer no advantage. They have poorer reciprocity performance and grainier images compared to Provia 100F RDP III. In tungsten film, Kodak's Ektachrome 64T EPY needs no adjustment for exposures up to 1.5 minutes. It needs +1/3 stop and a CC05R filter from 1.5 minutes to 2 minutes. It is not recommended for exposures longer than 2 minutes.

You should generally add the extra f-stops by adjusting aperture instead of increasing exposure time. The latter has a multiplicative effect on reciprocity. Be wary however, because larger apertures mean more light intensity and this can increase contrast. Experiment based on the specific situation and bracket – a lot.

Building interiors. These shots can be tricky. You will almost always be using some combination of light sources like daylight from windows or flash, incandescent and florescent. Select a film based on the dominant light and the add color correction filters as necessary for the situation. Many professionals prefer tungsten-balanced film for these mixed light shots. Kodak Portra 100T works well for a print film and the Kodak Ektachrome series of 64T, 160T and 320T work well for slide films in this application.

Copy work. Most copy work is done under incandescent work lights. You need a high-resolution tungsten-balanced film that renders colors accurately for copying other photographs, artwork, pages of print and so on. Kodak Portra 100T print film and Kodak Ektachrome 64T or Fujichrome 64T slide film all work well in this application.

Happy shooting!

## Abstract

This is Part II of a two-part article. This part applies the variables from Part I to common photographic situations and makes film choice recommendations based on a consensus of professional reviews. The situations are: general, landscape/nature, portraits, action (including photojournalism), low light, building interiors and copy work. Film recommendations are divided into print and slide film as well as daylight- and tungsten-balanced film. Recommendations are based on film speed requirements and characteristics under conditions associated with the situations.