

NEW KODAK

GOLD 400 FILM

Is This (Finally) the Ideal Color-Negative Film?

by Jack and Sue Drafahl

PHOTOGRAPHIC'S USER REPORT

Kodak announced a new and improved Gold 400 film at the 1991 PMA show in Las Vegas. We know what you are thinking: "New and Improved" means a new box, or maybe a new edge-numbering system. Not so. The "New and Improved 400" is definitely better. After extensive testing, we found that this high-speed film is approaching what we would call the "Ideal Color-Negative Film." When a high-speed color-negative film seems to closely match the quality of the much slower ISO 100 films, we find the need to take a close look at these new improvements.

EXPOSURE LATITUDE

The new Kodak Gold 400 color-negative film has an exposure latitude that clearly makes it an autoexposure film. We found that exposures from -2 stops to +3 stops yielded excellent prints. If you consider that most autoexposure cameras keep the exposure within ± 1 stop of the correct exposure, you should never again lose a shot due to a bad exposure.

Looking over the various exposure tests, we found that the overexposed negatives required additional exposure for printing, but lost very little detail. At the underexposure end of the scale, we found a small loss of shadow detail, and resulting prints were a little lower in contrast. Not bad when you remem-

ber that we are talking about exposing an ISO 400 color-negative film from EI 50 to EI 1600 on the same roll with no processing corrections, yet still obtaining acceptable color prints.

GRAIN STRUCTURE AND RESOLUTION

Kodak has incorporated its T-Grain emulsion into Gold 400, so both high speed and fine grain are together in one package. Our first inclination was to go back to our negative files and pull out some Kodacolor Gold 100 images and compare them to the new Gold 400. After finding similar images from both emulsions, we ran a few prints from each and compared. We could barely see a difference. Most impressive was the similar contrast range of both films. We then proceeded to make slide reversals on 5072 print film using the color pack we had used with the Gold 100. We had an exact match.

COLOR SATURATION

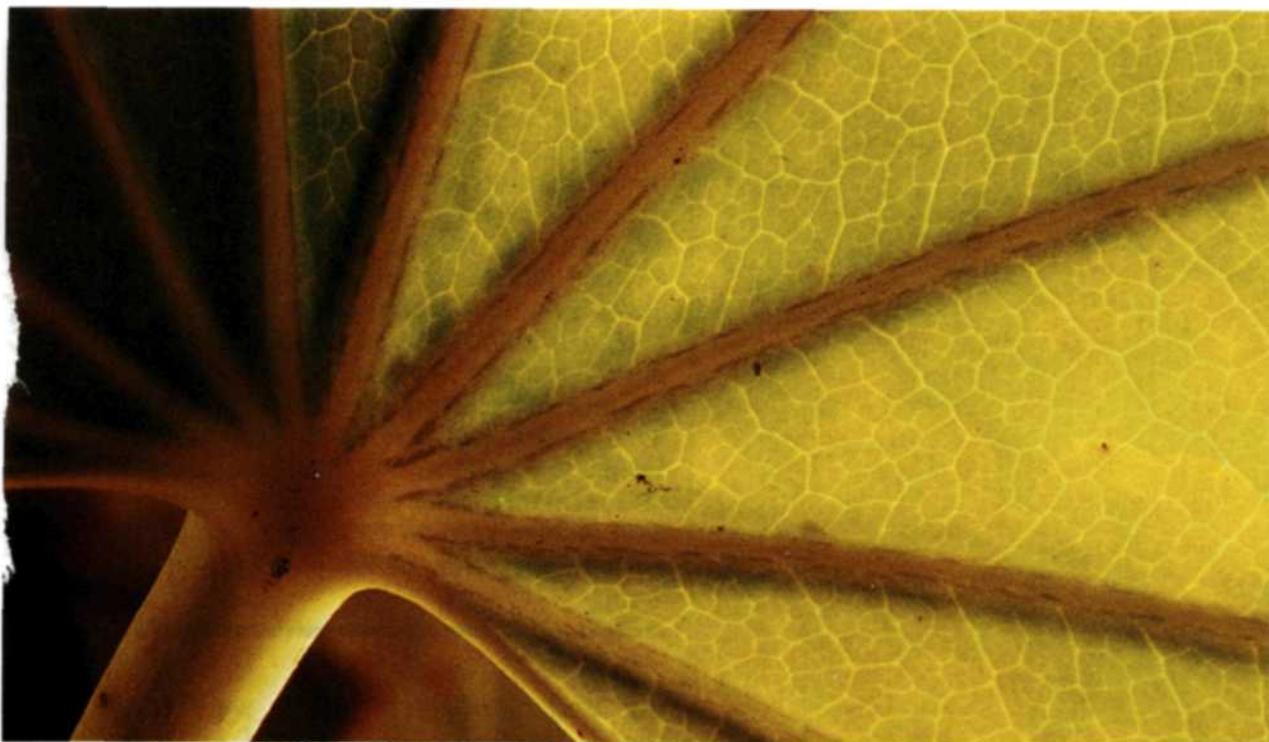
In the past, high-speed color-negative films had high color saturation in the midtones, but fell off as the image contrast progressed into the highlights and shadows. With this newer high-speed film, the contrast level is more like that of the ISO 100 films. It only follows suit that the color saturation would also increase in both the highlights and shadows, giving the impression of being an ISO 100 film.

We noticed that the natural greens in foliage reproduced better than with some of the ISO 100 films we had tested in the past. DIAR couplers, which are now standard in most Kodak color-negative films, keep the colors from blending into each other, while maintaining maximum color saturation. These couplers are especially helpful when photographing objects that have very large red areas. Gold 400 holds these reds extremely well.

BEST OF BOTH WORLDS

Both daytime and late-night tests were made to check both speed and image quality of this new film. Our night tests were made of the downtown lights during the PMA show in Las Vegas. We found that the film's high speed allowed us to handhold many of the shots for $1/125$ at $f/2.8$ and $f/4$. The resulting photos were very sharp, with fine grain and high color saturation.

On a trip to Santa Barbara, we tested the speed of the film using various telephoto lenses. Our subjects were seals sunning themselves on buoys near the oil platforms. Between the movement of the boat and the wave action, conditions were not ideal for handholding a 300mm lens. Looking through the finder we found we could shoot for $1/8000$ at



1. Here, the subject was placed between the sun and the 60mm AF macro lens on a Nikon N8008S camera. Gold 400 permitted an exposure of $\frac{1}{250}$ at f/32, using flash.

2. The new film comes in a new package, naturally enough.

3. This photo was taken on the way to the airport after the PMA show in Las Vegas with Kodak Gold 400 film in a Nikon N8008 with 28-85mm AF Nikkor zoom lens, handheld at $\frac{1}{30}$ at f/5.6.

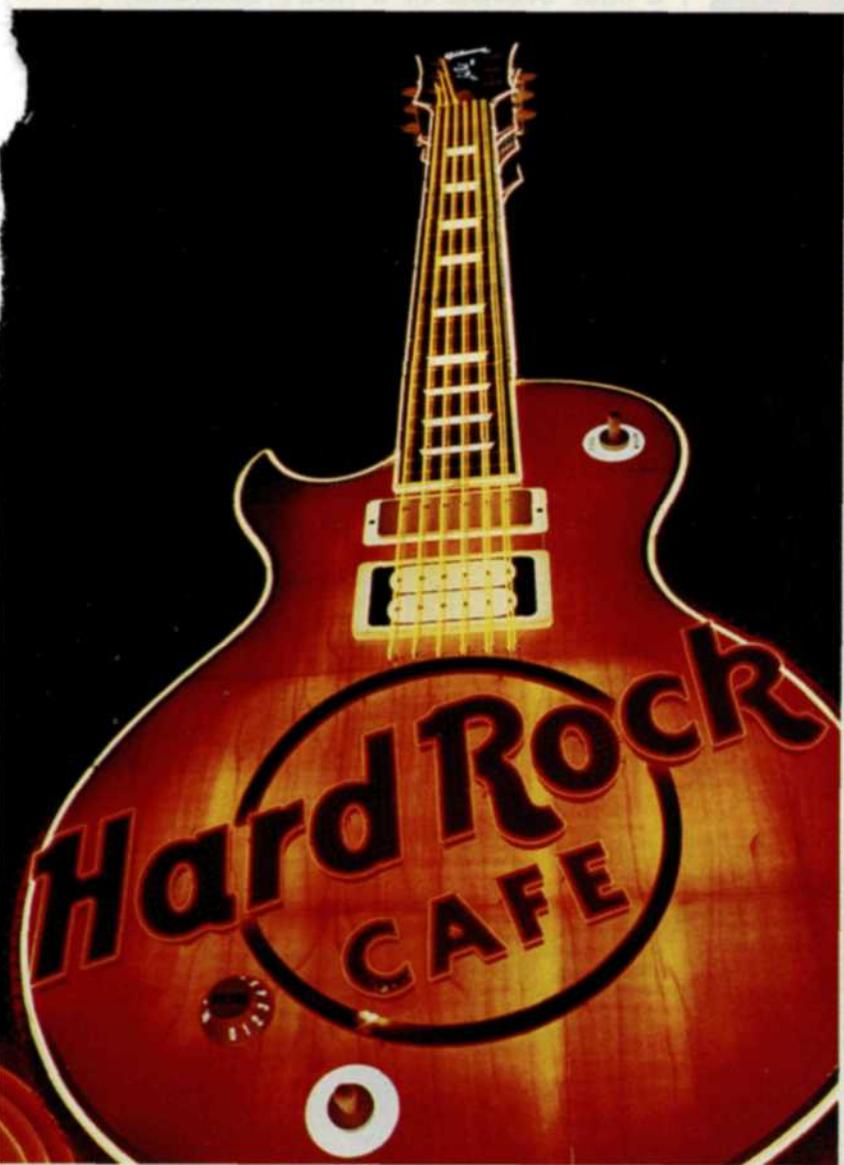
4. This new water fountain being constructed in Santa Barbara, California, was photographed with new Kodak Gold 400, using a Nikon N8008S camera and a 20mm AF Nikkor lens. The exposure was $\frac{1}{500}$ at f/16 in full sunlight.



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1. Kodak Gold 400 film was used in a Nikon N8008S with a 105mm AF Nikkor macro lens and SB-21 flash unit to make this shot of a backyard toadstool. Exposure was $\frac{1}{125}$ at f/22.

2. Gold 400 reproduced these Las Vegas lights very well in this photo taken with a Nikon N8008S and 28-85mm zoom lens, handheld at $\frac{1}{15}$ at f/8.

3. Gold 400 sharply recorded this image of a green ivy leaf with water drops, taken with Nikon N8008S camera and 50mm macro lens set to 1:2 magnification. A Nikon SB-21 flash was also used, with an exposure of $\frac{1}{250}$ at f/22.

KODAK GOLD

f/4. After shooting more than a roll, we switched to a 500mm f/8 mirror lens. This reduced the shutter speed to $\frac{1}{2000}$, but we found the resulting images from both lenses to be superior.

Our third test was a nature safari, which we used to check both film speed and image quality—the key ingredients for fast-paced close-up photography. We knew from previous tests that the image quality was excellent, so we were mainly looking for the mechanical advantages of shooting this film in close-up nature photography.

Because of the higher film speed, flash recycle time was much shorter, allowing us to rapidly follow moving insects, and larger creatures that crossed our path. We found that our flash batteries lasted considerably longer, and we were also able to use much smaller apertures than ever before. We no longer had to work with the flash recycle/depth-of-field trade-off that so many nature photographers battle.

FILTRATION AND RECIPROCITY FAILURE

Kodak Gold 400 film is recommended for exposures between 10 seconds and $\frac{1}{10,000}$. Exposure times beyond 10 seconds are not recommended by Kodak. We were able to test exposure times faster than $\frac{1}{10,000}$ by shooting at large apertures with close-up flash, and found very little change in color or exposure. We did not test beyond the 10-second limit, but would assume that color shifts and exposure loss would start to appear beyond this limit.

We found that a standard CC30 magenta filter worked best for shooting under fluorescent lights. When shoot-



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ing under tungsten lights, we found that an exposure increase of $\frac{1}{3}$ to $\frac{1}{2}$ stop improved our image quality. One advantage of shooting color negatives is that if you don't have the proper filter at the time you want to make the shot, you can still shoot—without the filter—and correct the image at the printing stage.

CONCLUSIONS

Many of our photographic friends ask us why we never tire of the constant changes going on in film technology. We look at it this way: Technical advances in films allow us to use our camera creatively to obtain shots that were not possible before—all on high-quality film. Best of all, we never lose a shot because of a film's deficiency. Each improvement in a film only makes us look better. So we say, keep up the good work Kodak, and never stop improving your films.

New Kodak Gold 400 is available in 12-, 24-, and 36-exposure 35mm cassettes, and 24-exposure 110 cartridges. Eastman Kodak Co., 343 State St., Rochester, NY 14650; telephone (716) 724-4000. ■

