

# FUJICOLOR 400 PRO HG

## A New, Low-Contrast, High-Speed Portrait Film

by Jack and Sue Drafaahl

### PHOTOGRAPHIC'S USER REPORT

As film manufacturers refine their new high-tech color-negative emulsions, specialty films become the next logical step. Fujicolor 400 Professional HG is a new low-contrast portrait film that offers a true ISO 400 film speed yet still maintains the grain size of an ISO 100 film. Filling a very important gap for photographers, it allows them to shoot under difficult lighting conditions, while maintaining the high image quality necessary for professional photography.

#### EXPOSURE UNDER VARIOUS LIGHT SOURCES

Fujicolor 400 Professional HG is designed for use under daylight conditions where the lighting ratio on the subject is approximately 1:4. After extensive tests in a variety of situations, we found the exposure latitude of this film to range from -2 stops to +4 stops. Pro HG can be exposed from  $\frac{1}{4000}$  to 10 seconds without encountering reciprocity failure. Exposure under different types of light sources does not require filtration, as the final images can be corrected in the printing process. For best results, Fuji recommends that exposure times of  $\frac{1}{60}$  or longer be used when shooting under fluorescent lighting.

#### HIGH-TECH EMULSION

Fujicolor 400 Professional HG film makes use of Fuji's advanced emulsion technology, including double-structured grain (in which the grain's inner layer receives information from light particularly well, and the outer layer receives the first developer particularly well, resulting in a highly efficient grain in terms of both exposure and development). The silver-halide particle volume is reduced by  $\frac{2}{3}$  through the use of Fuji's sensitivity-speck formation technology. This technology is responsible for the grain reduction without any compromise in film speed. Fuji also incorporates its unique Reactivated Inhibitor Releaser (RIR) to control a two-step chemical

reaction in each emulsion layer. This RIR activator enhances the interlayer effect, providing rich, more accurate colors, creating an unbiased gray balance, and maintaining detail in both shadows and highlights.

#### WEDDING PHOTOGRAPHY

We tested the new Pro HG film under a variety of portrait and wedding conditions most professional portrait photographers would encounter. A local wedding was our first and most difficult test. For the main shots, we used a Mamiya RB67 camera and 120-size Fujicolor 400 Professional HG. The 35mm version of the film was used in a Nikon N8008S camera with a 28-85mm autofocus lens for some candids, and in other situations where the larger format was not practical.

In the main part of the church, we exposed the film under tungsten light, with and without flash. In other parts of the church, we used mixed window light, tungsten, and flash-fill. We found that by exposing the film at its rated ISO 400 speed, we could hold detail in the bride's white dress and in the bridegroom's black tuxedo. The film's sharpness, grain structure, and shadow detail were most impressive for an ISO 400 film. When we rated the film at a slower speed, we were able to increase contrast and color saturation for situations with very flat lighting.

#### OUTDOOR PORTRAITS

For our outdoor portrait tests, we placed our subject near a tree in deep shade. Normally, these conditions would present a problem because of the low lighting and blue color shift. When we printed our 120 Pro HG negatives, however, the results had an excellent contrast range, natural color rendition, and extremely fine grain. We made several bracketed exposures, and found the film to be very flexible when it comes to contrast control. For natural lighting, the rated ISO 400 speed seemed to be best, while a rating of EI 200 was better suited for situations where we wanted to enhance the lighting ratios. We used fill-flash on some of the shots, but pre-

ferred the available-light results.

#### INDOOR PORTRAITS

A local veterinarian was the subject for our indoor-portrait test. We used the medium-format Mamiya camera with a normal lens and two Nikon SB-24 flash units, one in an umbrella, and one bounced off the ceiling. We were impressed with the fact that we could light an environmental portrait by means of two small flash units normally reserved for 35mm photography. Previously, in such situations, we would have been required to use a much larger studio strobe to get enough light to correctly expose the ISO 100 films we had to use before Pro HG came along.

#### NONPORTRAIT APPLICATIONS

We found a variety of pictorial applications in which high speed, fine grain, and low contrast were necessary to accomplish specialized photographic tasks. In outdoor nature tests, Fujicolor 400 Professional HG film performed very well when the scenic contrast range was greater than normal. For example, early morning scenes, in which sunlit and deeply shaded areas were both important, recorded very well with detail in both areas. Difficult macrophotography of flowers and insects was easily accomplished with the new film's high speed, fine grain, and wide exposure latitude.

#### FORMAT AND PROCESSING

Fujicolor 400 Professional HG comes in 35mm, 120, and 220 film formats, and is processed in C-41/CN-16 film processes. The 120 and 220 versions can be retouched on both emulsion and base sides. The 35mm version has the standard DX coding necessary for auto printing in many of the new print-enlarging systems on the market. All three formats should be stored below 77° F for the short term, and below 50° F for longer periods.

#### PRINTING TESTS

Color-printing packs for both the 35mm and 120 versions of Pro HG required a 10-point magenta increase



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ALL PHOTOS BY AUTHOR



over similar Kodak films. When we made 8X10 enlargements, we found the grain structure to be almost nonexistent. We felt the print contrast was very consistent with natural-looking flesh tones. We recommend that any separations made from this film be made directly from a print or with a negative scanner, rather than from a transparency made on print film.

#### PUSH-PROCESSING

Even though this film offers the higher ISO of 400, there may be times during a wedding session when the light level drops so low that even more speed is needed. We would then recommend rating the film at EI 800 and push-processing it one stop. Although we found the contrast to be slightly greater with push-processing, it was quite acceptable. We found very little increase in graininess with pushing, and apparent sharpness actually increased slightly, due to the increased contrast. At a one-stop push, the base density of the film is slightly increased, causing a shift in color balance from the normal printing pack.

#### NUMBERS

For those of you who like numbers, Fujicolor 400 Professional HG has a diffuse RMS granularity of 5 (with RMS granularity figures, lower is better, and Pro HG's rating of 5 means it is finer-grained than the RMS 6-rated ISO 100 color-print films of just a

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1. Flopsy the rabbit was photographed outdoors with a Nikon N8008S and 60mm AF Micro-Nikkor lens, using fill-flash and Fujicolor 400 Professional HG film. This new film works very well with electronic flash.

2. This portrait of Kristi Waibel was made with a Mamiya 645 and 80mm lens. Lighting was deep shade on an overcast day. Exposure on 400 Pro HG was  $\frac{1}{60}$  at f/8; the film provides fine color reproduction in the bluish light.

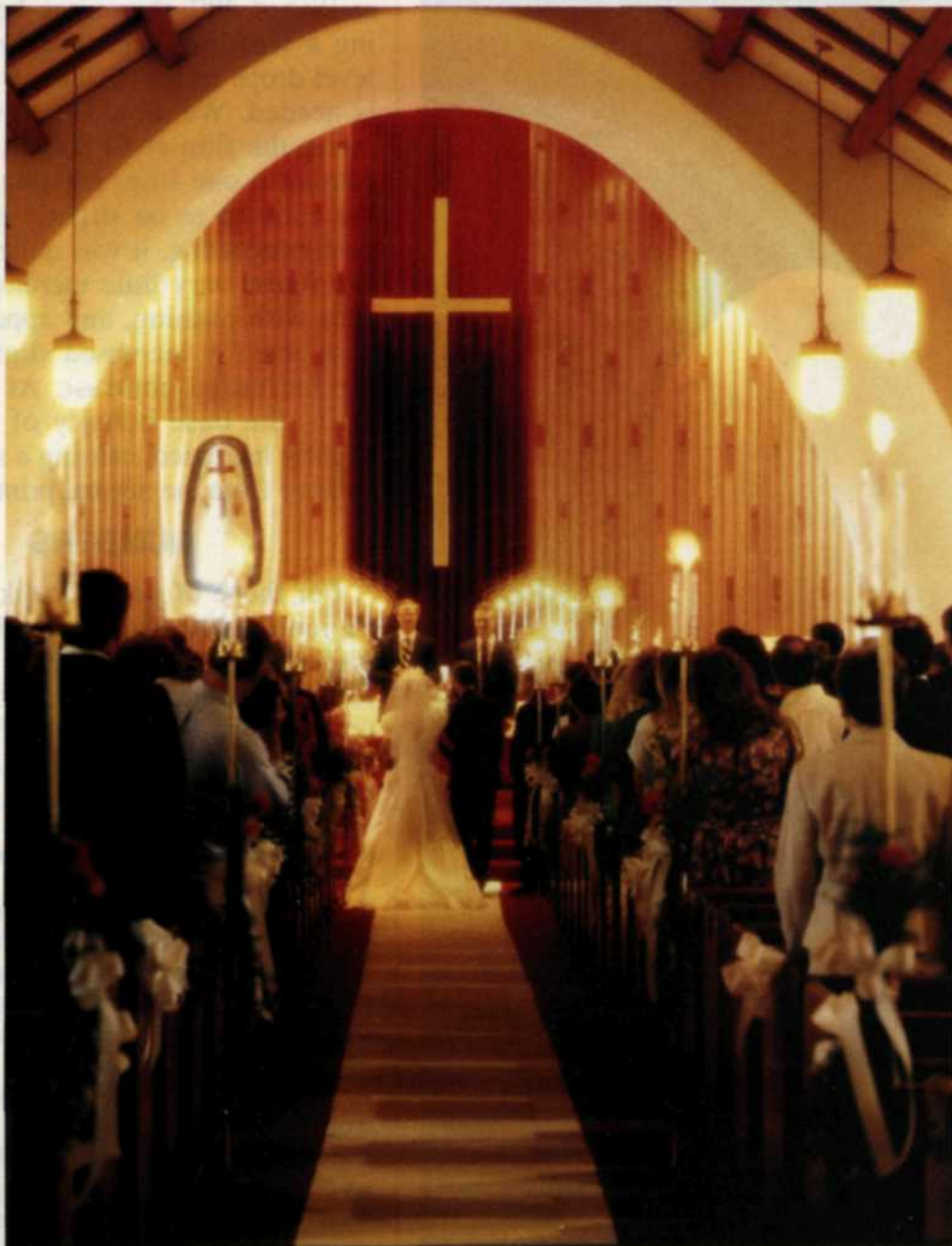
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few years ago.)

In terms of resolving power, 400 Pro HG resolves 100 lpm with a high-contrast (1000:1) test subject, and 50 lpm with a low-contrast (1.6:1) test subject—that's as good as the resolving power of some of today's ISO 100 color-print films, and better than that of the ISO 100 color-print films of just a few years ago.

#### CONCLUSION

If we had to sum up the new Fujicolor 400 Professional HG in one word, it would be "versatility." When you have fine grain, high speed, and contrast control in one film, it truly becomes a valuable tool for professional photographers.

Fuji Photo Film U.S.A., Inc., 555 Taxter Rd., Elmsford, NY 10523; telephone (914) 789-8100. ■

1. This portrait of veterinarian Anita Warren-Peila and patient was taken on 400 Pro HG film with a Mamiya 645, 80mm lens, and two Nikon SB-24 flash units—one bounced off the ceiling and the other with an umbrella.

2. A Nikon N8008S, 60mm AF Micro-Nikkor lens, and SB-21 ring flash unit were used to record this flower close-up on 400 Pro HG film.

3. This wedding shot was made from the church balcony with a Mamiya RB67 camera, using Fuji 400 Pro HG film. The existing-light exposure was  $\frac{1}{500}$  at f/5.6.

accordingly. This isn't the incredible Omni-Dimensional Predictive AF of the Maxxum 7xi, but it does work well in most situations.

Of course, you can also focus the lens manually, when desired. With standard Maxxum lenses, set the camera's focus-mode switch to manual focus, and rotate the focusing ring until the image appears sharp in the viewfinder. With the AF AutoZoom and Power Zoom lenses, pull the zoom ring back toward the camera body, then turn it until the image in the finder appears sharp (the lens will power-focus). With the Power Zoom lens, you can lock focus in AF mode by pulling the zoom ring back toward the camera; you can also then fine-tune focus manually by rotating the ring.

#### FLASH

In P mode, the 3xi's built-in flash unit will automatically pop up and fire whenever it is needed (a dedicated Maxxum flash unit attached to the hot-shoe will also automatically fire when the camera's computer deems it necessary). The

*Below:* The Maxxum 3xi/SPxi's predictive continuous autofocus tracks moving subjects quite well.

*Bottom and bottom right:* Combining point-and-shoot simplicity with a wide range of interchangeable AF lenses, the Maxxum 3xi/SPxi lets you do everything from true close-up photography to distant telephoto work.

*Right:* The eight-segment honeycomb metering and Expert programming make even tricky exposure situations easy to handle.

