

NEW SCOTCHCOLOR FILMS

Three Significantly Improved Color-Print Films

by Jack and Sue Drafahl

PHOTOGRAPHIC'S USER REPORT

Have you ever wondered who makes all those private-label films you see at the counter of your favorite K-mart or Target retail stores? Have you ever run out of film and hurried into a retail store only to be confused by all the brand names? Wonder no longer! Most of those retail private-label films are really new 3M print films offered under the ScotchColor label. 3M not only makes color-negative films under its own label, but specializes in packaging over 70 private labels, as well.

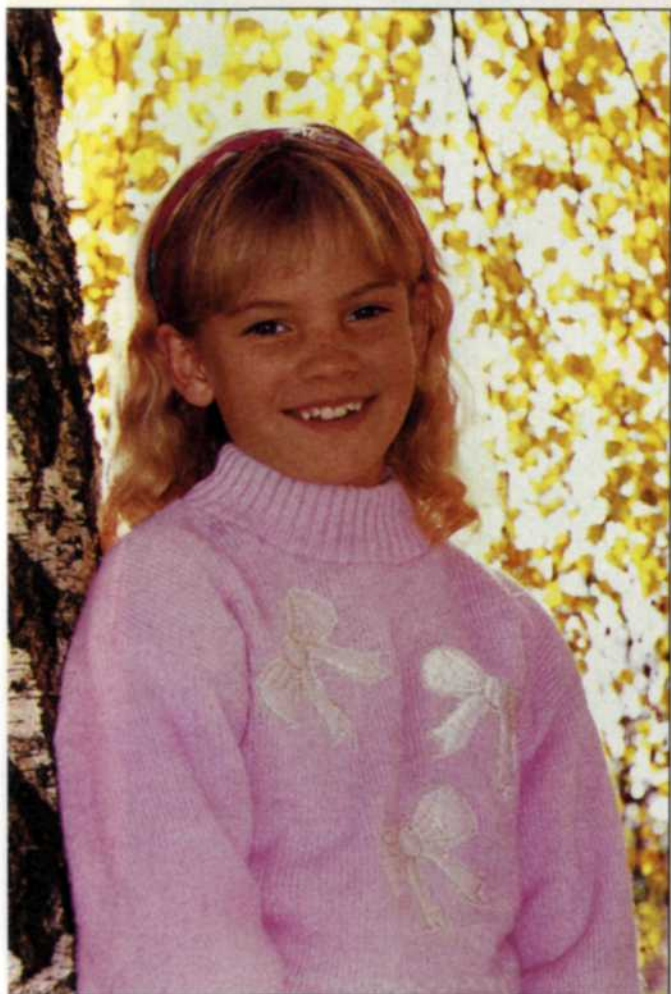
At last year's Photokina, 3M introduced improved versions of the ScotchColor 100 and 200 color-negative films. Similar improvements will be made to the 400 color negative, and it will be released in mid-1991. All these materials come in distinctive new packaging characterized by the Scotch globe logo on a horizontal gold background.

SCOTCHCOLOR 100

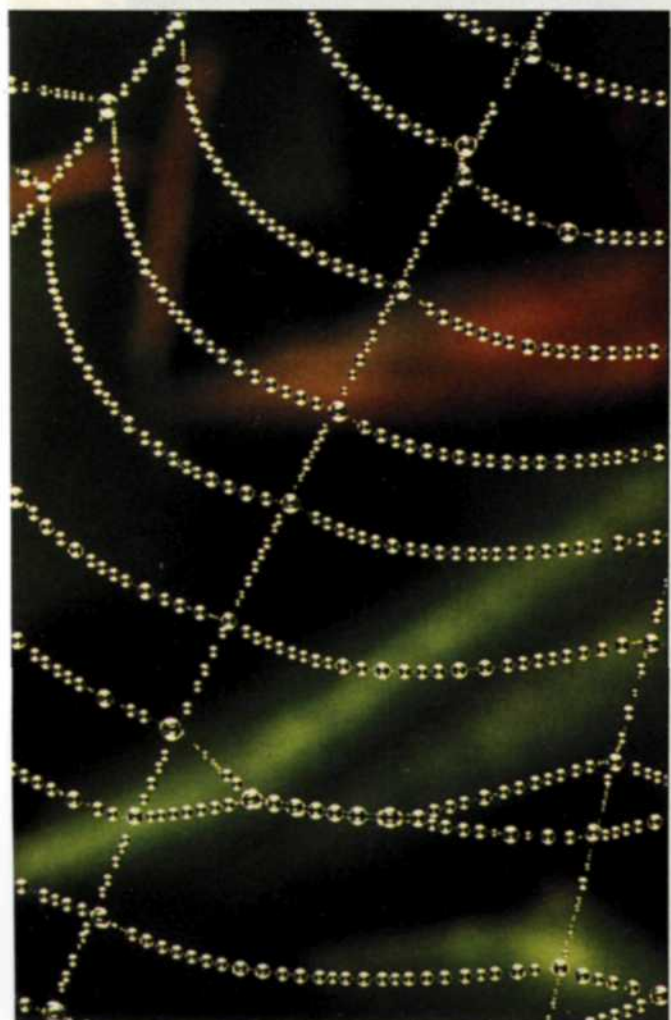
This 100-speed color-negative film is designed for the photographer who shoots outdoor scenics, macro, still life, and situations where maximum sharpness and color saturation are the main considerations.

The new emulsion includes an improved blue spectral sensitizer and UV trimmer, which, in effect, improves the color saturation of blue-colored objects and minimizes the blue cast associated with scenes illuminated by the northern sky or shade. The optical improvements in these blue-sensitive layers also improve the green and red sharpness in the final image. Improved color reproduction of cyan and green objects is gained through the use of a new yellow filter layer. Finally, the antihalation backing was restructured, increasing overall image sharpness.

FIELD TESTS: Most of our tests with the 100 film concentrated on still life, macro, and situations where we had total control over movement of the subject. We found that the film was really about $\frac{1}{2}$ stop faster than its ISO 100 rating. We assume that this is to compensate for any variance in exposure with different cameras, but it may also have been the batch of film we were sent to test. The resulting overexposure



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ALL PHOTOS BY THE AUTHORS

1. For this flash-filled backlit portrait of Sarah Brubaker, we used ScotchColor 100 in a Nikon N6006 with a 28-85mm zoom lens. Exposure was $\frac{1}{125}$ at f/11. The negative printed properly with our normal filter pack.
2. This spider web was also recorded on ScotchColor 100, this time using a Nikon N6000 with 60mm macro lens and SB-21 ring flash. Again, the negative printed with the normal filter pack.
3. As several raccoons invaded our garage for cat food, we sat in the doorway and used various focal lengths to crop in on one, two, three, or all five of the bandits. We recorded this invader on ScotchColor 200, using a Nikon N8008, 28-85mm zoom lens, and SB-24 flash unit. The negative printed easily with normal filtration.
4. This bag of onions on a colored wagon

- under the eave of a roof reproduced beautifully on ScotchColor 200, and the negative printed with normal filtration. The shot was made with a Nikon N6006, and 28-85mm zoom.
5. The new ScotchColor films come in new, brightly colored boxes, indicative of the brightly colored prints the films contained therein can produce.
6. Another example of ScotchColor 100's brilliant color reproduction is this shot of a leaf on colored metal in full sunlight.
7. An interior shot at the Portland Convention Hall on ScotchColor 400 printed well when corrected for the red shift caused by the tungsten lights.
8. This twilight shot, made on ScotchColor 400 in downtown Portland, printed beautifully with filtration correction for the magenta-blue shift caused by the 20-second exposure time.

had no effect on the quality of the images; in fact, it kept the contrast up on those negatives that were slightly underexposed. Exposure latitude for the 100 film is +3 stops to -2 stops, more than any autoexposure camera would vary from the correct exposure.

Sharpness tests were made using a variety of local dew-dropped spider webs, with and without occupants. We found the resulting negatives to be ex-

tremely sharp, with a very tight grain pattern. Because many of these web scenes were predominantly black, our camera meter was fooled, and thus overexposed many of the negatives by at least two stops. Realizing this, we corrected the camera for some of the shots and left it uncorrected for others. When printing these negatives, we found that even with this two-stop overexposure, color-printing filtration

stayed within ten points of our standard printing packs.

Additional shots were made of a model, with her back to the sun, in order to test the color balance between sun and shade. The resulting prints showed very little color change from sunlight to shade, making ScotchColor 100 ideal for sun/shade mixtures.

SCOTCHCOLOR 200

The 200-speed color-negative film is designed for situations where lighting is less than that required for the 100 film, or when action in the scene requires a faster film. The 200 film includes a new Super DIR coupler that improves the color of green subjects. In addition to the improvements found in the ISO 100 film, the ScotchColor 200 has a new cyan coupler, which helps correct cyan highlights that occur in some of the processing labs that have bleaching problems.

The ISO 200 film would be an excellent choice for family activities that migrate from sunlight to shade and back again. Birthday parties, graduations, and family reunions all would be ideal candidates for this film.

FIELD TESTS: During the entire testing procedure, we kept three cameras load-

RICOH KR-10M

(Continued from page 81)

SPECIFICATIONS

CAMERA: Ricoh KR-10M
TYPE: 35mm SLR with focal-plane shutter and automatic electronic exposure control
LENS MOUNT: Ricoh system R-K mount
EXPOSURE MODES: Aperture-priority AE, metered manual
METERING: TTL center-weighted averaging via SPD; EV range 0-18 (ISO 100, 50mm f/1.4 lens)
FILM-SPEED RANGE: ISO 25-5000 in 1/5-stop increments
DX ENCODING: Yes; non-DX films are set to ISO 100; other film speeds can be set using exposure-compensation function
SHUTTER SPEEDS: Auto: 32 sec. to 1/2000; manual: 16 sec. to 1/2000, plus B
VIEWFINDER: Field of view covers 91%; 0.8X magnification
VIEWFINDER DISPLAY: AE lock, under- or overexposure, shutter speed, exposure compensation, flash-ready LED, long time exposure
FOCUSING: Diagonal split-image spot in microprism band; plus full groundglass field
TOP LCD INDICATORS: Shutter speed, multiexposure, autobracketing, film counter, film loaded, film advancing, rewind, battery condition
EXPOSURE COMPENSATION: ± 4 stops in 1/5-stop increments
FLASH: Aperture-priority flash AE, manual flash
FLASH SYNC: 1/100 in auto; 1/60 in manual
OTHER FEATURES: AE lock, exposure compensation in 1/5 stops, built-in autolock, -wind, -rewind, -stop; multiexposure, autobracketing, electronic-remote capability
SELF-TIMER: 10 second; LED
POWER SOURCE: 4 AA batteries
SIZE: 5.9X3.5X2.0 in. (151X91X51mm)
WEIGHT: 18 oz. (510g), body only
PRICE: \$304, body only
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loading, autoadvance, and autorewind. But, with a single AE mode plus metered manual, the decision-making process is restored to the photographer.

The camera handles nicely. It is not overly heavy, but has enough heft to make it comfortable and give it a solid feel in your hands. It is relatively easy to change modes and shutter speeds, and, because of the bright viewfinder, it is a snap to focus. Exposures were accurate in situations where center-weighted averaging metering systems usually prevail; that is, average exposure situations. In out-of-the ordinary situations, like backlighting or light sources within the frame, you must prevail on your photographic common sense, and use either exposure compensation or the autobracketing feature.

The KR-10M is a simple camera, and it's nice to see simplicity return to the photographic marketplace. ■

SCOTCH COLOR

(Continued from page 83)

ed with the three different-speed films. When unexpected situations arose, we selected the camera loaded with 200 film. Such a situation occurred when we heard a sound from the garage. When we opened the door, we were greeted by five large raccoons in the process of cleaning out all the cat food. The largest raccoon didn't want to sign a model release and left immediately, but the other four stayed.

We proceeded to shoot two rolls of ScotchColor 200 negatives, using flash, and found that the resulting shots were well-exposed and sharp, and reproduced the black-and-white bandits as though they were still there. As with the ScotchColor 100, we found the actual speed of ScotchColor 200 to be 1/2-stop higher than its ISO rating. This helped create the -2- to +3-stop latitude necessary to hold the entire contrast range of the scene.

On another overcast day, we proceeded to a western market, where we found all kinds of wagons and tables full of fruit and vegetables. We selected subjects that had fully saturated colors grouped next to other subjects with opposing colors. We found that the new Super DIR couplers held each of the pure colors within their boundaries, and kept the fine image detail in each color at a maximum.

After viewing the results of several rolls of ScotchColor 200, we concluded that it was at its optimum when used under overcast or gray skies. Contrast was excellent, and color saturation was at a maximum.

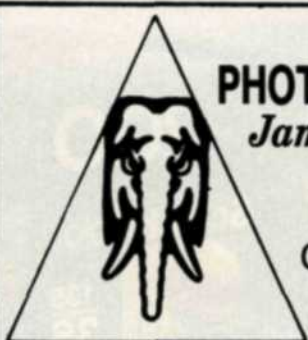
SCOTCHCOLOR 400

When situations arise where the light level drops, or high-speed action is part of the scene, 3M recommends their ScotchColor 400 negative film. This film has excellent exposure latitude and color rendition, and superb image sharpness. Possible subjects for this film would include ice shows, amusement parks, sporting events, theater, store windows, and interiors.

The data sheet enclosed with the film recommends the use of an 80A filter under tungsten light. If no filter is used, correction can be made in the printing process. In that case, you should let the printer know that a tungsten color-shift correction is necessary.

FIELD TESTS: Since existing light seems to be the best use of 400-speed color-negative films, we selected a Portland's new convention center as a test subject. Inside, we found low levels

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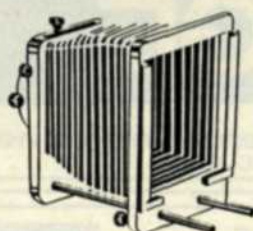
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SCOTCH COLOR

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of tungsten and fluorescent lighting. Using a 20mm lens and shutter speeds down to 1/15, we were able to handhold the camera for all the interior shots. Exterior shots of the tungsten light towers were made using a tripod at 1/4 second down to 1 second.

We finished the test on a night fountain in a nearby park. Exposures there were from 10 to 30 seconds. After processing the film, we again found that 3M had rated the film speed lower than it actually was by, again, 1/2 stop. The resulting interior shots of the convention center were extremely fine grained, and held excellent shadow detail into the deepest shadows.

We found little reciprocity failure

with the long exposures of the fountain, but did find a considerable color shift to the magenta-blue side. We suggest that if you plan on making exposures this long, use the color corrections recommended in the data sheet to help keep the film in balance. This will cut down on testing if you make your own prints, or allow you to use a one-hour lab and still get excellent results.

These Scotch films are still relatively new to the market, and you might not find them available everywhere, so 3M offers a toll-free number to help you locate your nearest dealer. Give them a call at 1-800-695-FILM.

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