

# FASTEST FILM FROM GERMANY

ISOPAN RECORD, latest product of the Agfa plant at Leverkusen in West Germany, is a black-and-white film which belongs in the "superfast" speed classification. The "official" exposure index of this film is 29°DIN, or approximately 640 on the ASA scale. However, according to Agfa, best results are obtained with a rating of 34°DIN, which I figure out to be in the 1600-2000 range. That's a lot of film speed—if you have it.

Isopan Record was introduced at the Cologne Photokina last October, in 35mm and roll films, and soon will be available here. I was fortunate enough to get three rolls of the very first material distributed at Photokina. Later we bought some more from a cooperative German photo dealer who air mailed it to us. So I've had the opportunity to see the results of about 15 rolls of 35mm and several 120, some exposed by other MODERN staff members. However, that's not enough experience to come to any really final conclusions about such a material, so let's say that this is a report of progress to date, with maybe more later.

## How the tests were made

First, let me explain the basis for whatever conclusions are stated. The first thing I do is to follow the manufacturer's instruction to see what happens. So, under conditions as carefully controlled as I was able to make them, I exposed similarly several rolls of Isopan Record 35mm and 120 and other films. Then each was developed, using the particular developer specified by each film maker. The developed films were carefully identified. Then similarly exposed negative pairs of Isopan Record and other films were simultaneously enlarged onto 11 x 14 paper. When these double prints were developed they gave graphic indications of similarities and differences between the results obtained with various film/developer combinations. Such a procedure is not without pitfalls. Differences in the density of the film base due to different colored dyes, overall base fog level, variations in density due to fixing and washing times, and other factors can mislead the experimenter. But these were

**Agfa Isopan Record 35mm, a brand new film, combines to an unusual degree very high speed, moderate graininess, and ability to produce pictures with outstanding apparent sharpness. There's a roll film too, and both will be available soon.**

taken into consideration as much as possible. On the basis of these tests I was able to decide how I should expose and develop my few remaining rolls for actual picture taking.

It soon became apparent that although they bore the same name, Isopan Record 35mm and 120 were not quite the same in behavior (at least not the rolls I had). Agfa specifies development in Rodinal diluted 1:50 for 15-20 minutes at 68°F. The 35mm negatives came up clean and fog-free; the 120 rolls showed a markedly higher fog level.

I found that in daylight with average subjects, following the exposure techniques shown on *page 71*, the 35mm could be used with an exposure index of 1600 and with normal development would produce well-detailed negatives that printed easily on No. 2 or No. 3 paper. Where the subjects were of relatively low contrast—faces evenly lighted by daylight fluorescents and in diffused daylight—an exposure index of 3000 was

**STOPPING ACTION AT THE GARDEN:** Jim Palmer, left, 6 ft. 8 in., tangles with Kenny Sears, 6 ft. 9 in., as little Richie Guerin, who is only 6 ft. 4 in. tall changes course violently. The exposure: 1/500 at f/2.8 in a Leica with 50mm Summicron lens. The film: Agfa Isopan Record 35mm, exposure index 1200 using an incident light meter, developed 15 min. at 68F in Kodak DK-50 diluted 1:1. This gives about the same results as recommended development in Agfa Rodinal 1:50, 15 min. at 68F.



feasible, although I don't recommend it. In tungsten light, I found an exposure index of 1000-1200 to give good results with average subjects, such as faces with moderately dark shadows.

These 35mm negatives enlarged well on No. 2 and No. 3 paper. In full negative 8 x 10 prints there was visible but unobjectionable graininess; in full 11 x 14 prints the graininess was quite noticeable but not excessive; in a 15X enlargement there was graininess galore. But everything in the picture, including the graininess, had an astonishingly sharp-edged look to it. Obviously, Isopan Record 35mm had the ability to produce pictures of high apparent sharpness.

### The exposure index numbers game

I've rattled off some astronomical exposure indexes. What do they mean? Well, even these numbers are as mere nothings compared to the exposure indexes which many people *think* they are using. It's all a matter of how you use your meter, and how bad a result you're willing to settle for. In my case let me say that all my exposure calculations were made with incident light meters (I have three, all in good shape) and were cross-checked with Weston meter readings on a white card, as shown on *page 71*. I use these techniques because I won't settle for anything less than full detail in the important shadow areas of my negatives, when they are developed normally.

Anytime normal development does not produce full

detail in important shadow areas it's a sign of under-exposure, and that means that you're falling victim to the exposure index numbers game. So, if you want to get the best results out of Isopan Record, or any other fast film, I suggest you try the techniques demonstrated on *page 71*. Otherwise, you're in for trouble.

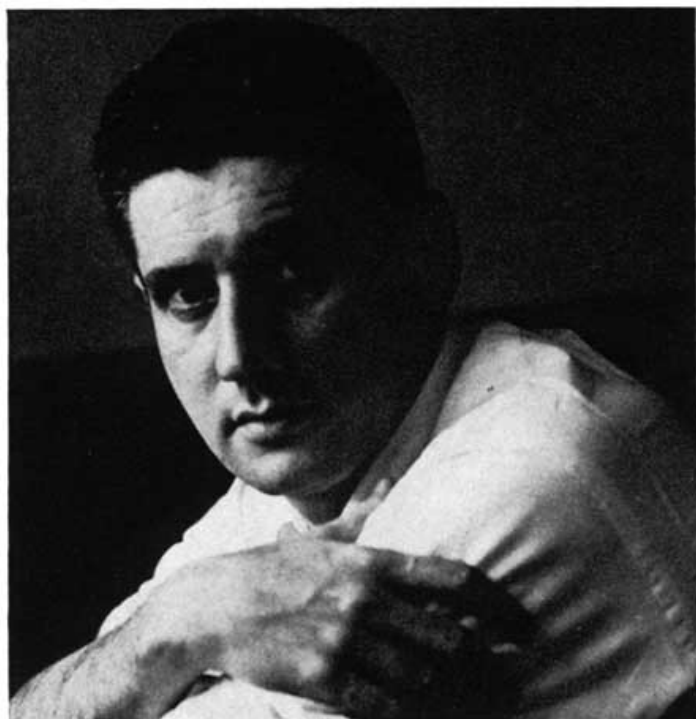
Taken out of context, the high exposure indexes I used may be confusing. What do they mean in relation to other films? Let me again emphasize that I'm referring only to normal development according to the manufacturer's instructions. I'm not going to speculate on what may happen when different films are "pushed" in the various supersoups which some people favor.

My tests indicated that Isopan Record 35mm was faster than any American-made 35mm film. It and Ilford HPS appeared to be a pretty close match for speed. In the roll film size Kodak Royal-X Pan was noticeably faster than Isopan Record. The latter appeared to be pretty closely matched for speed with Ilford HPS.

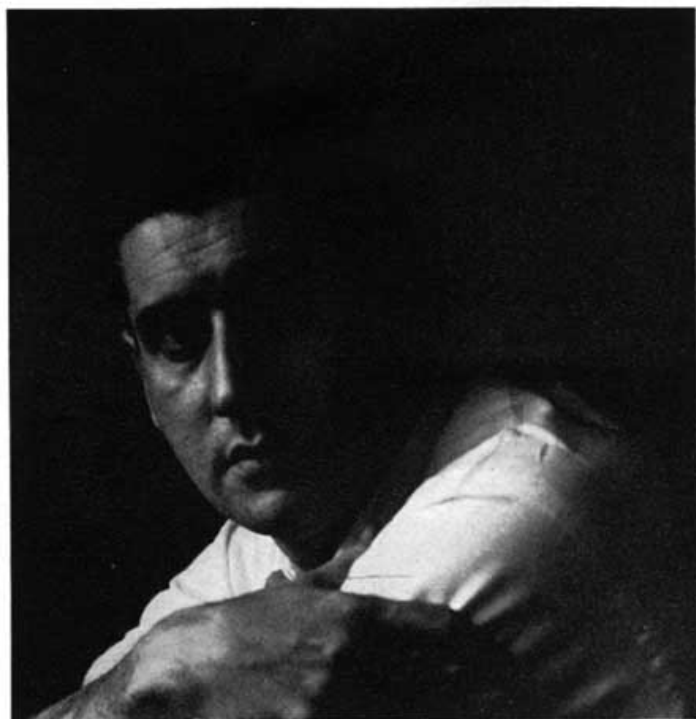
It's a fact that the superfast films may be subject to some changes from batch to batch, so it's possible that the relative speeds might be different when some other batches are tested. In any event, when you get up into the range of film speeds represented by these products it's a very foolish business to try to state definitely that film A is X percent faster than film B, and I won't attempt such a thing in a story like this one.

What about development? (Continued on *page 110*)

## ROLL FILM SPEED TEST: ISOPAN RECORD VS. KODAK ROYAL-X PAN



Kodak Royal-X Pan appears to be the fastest roll film on the market at present, so Isopan Record was tested against it. For these portraits, Royal-X Pan (left) and Isopan Record (right) were similarly exposed in the same camera and developed as recommended by the manufacturers: Royal-X Pan, 6 minutes at 68° F in



Kodak DK-50; Isopan Record, 18 minutes at 68° F in Agfa Rodinal diluted 1:50. Both negatives were simultaneously printed on one sheet of 11 x 14 paper. The Royal-X Pan half shows that the negative had more shadow detail and more overall density than the Isopan Record negative, which printed darker.



## TO GET FULL FILM SPEED EXPOSURE MUST BE CORRECT. HERE'S PROPER METER USE.



1

The superfast films give best results with a combination of "normal" development and minimum "correct" exposure. That is, just enough exposure to record fully all the detail in the important shadow areas when the negative is developed. Any less exposure means that important detail will be missing—underexposure. Any more exposure than the minimum "correct" amount wastes film speed, will not add any important shadow detail, and may cause excessive density in brightly lighted areas.

To get minimum "correct" exposure with the superfast films: use a sensitive, accurate exposure meter; set the meter for an exposure index  $2\text{-}2\frac{1}{2}\text{X}$  the "official" exposure index (for very dark-skinned people,  $1\frac{1}{2}\text{-}2\text{X}$ ); make sure your meter technique gives you enough exposure to bring out important shadow details. This last point is the rub. How do you go about it? The pictures and text explain this.



2

### 1. INCIDENT LIGHT READING IS SIMPLEST:

Incident light meters with hemispherical light collectors measure the brightness of all the front, side, and top light falling on the subject, are designed to automatically allow enough exposure to bring out important shadow details. Simply aim the "ping pong ball" at the camera position. Incident light meters with flat light collectors don't measure the sidelighting, but in most cases the only error will be a slightly greater exposure than if sidelight were measured.



3

### 2. WHITE PAPER READING, X5:

One good way to get an "average" exposure with a reflected light meter is to take a meter reading off a clean, matte surface white paper and give 5X the exposure indicated. Hold the paper straight up and down and facing the camera position. If turned at an angle, side lighting may change the readings considerably. This method permits accurate readings in dim light.

### 3. AVERAGE SHADOW, HIGHLIGHT READINGS:

Meter the important shadow areas, then the important highlight areas. Give an exposure halfway between. This is less consistent than methods 1 and 2.



4

### 4. EVEN LIGHTING TECHNIQUE:

With soft, even light, as here, there are no important shadow areas on the face—just take a reading off the skin. However, dark hair, eyes and clothes will be underexposed and lacking in detail. To correct this, give 2X indicated exposure, or use "average" readings as in 3.

The results using these various techniques will not all be identical but they all achieve substantially the same result—correct exposure.

# ISOPAN RECORD

*(Continued from page 70)*

Agfa recommends 15-20 minutes at 68°F in Agfa Rodinal diluted 1:50. It is my opinion that 15 minutes is the preferred time. It gives moderate contrast and graininess and the film is quite tolerant of accidental overexposure. Development for 20 minutes does not appear to produce any extra shadow detail, but does push both contrast and graininess to what I consider to be excessive amounts. Agfa also recommends 9-12 minutes at 68°F in Agfa Atomal Neu, a fine grain developer. This produces a somewhat smoother looking result than Rodinal (which is anything but a fine grain developer), but apparently with some loss of film speed and, I think, a slight reduction in the high sharpness look which is Isopan Record's outstanding feature.

I tried a few standard developers to see how the results matched those obtained with Rodinal 1:50, 15 minutes at 68° F. Here are my impressions:

Kodak D-76, 10 min. at 68° F: much less shadow detail.

Kodak D-76, 15 min. at 68° F: a bit less shadow detail, considerably more dense highlights, too much contrast.

Ilford Microphen, 14 min. at 68°F: perhaps a very slight increase in shadow detail, but at the cost of excessive contrast and too dense highlight areas.

Kodak DK-50, 7 min. at 68° F: a close match in shadow detail, contrast.

Kodak DK-50, 1:1, 15 min. at 68°F: a bit more shadow detail with somewhat higher, but not excessive, contrast.

UFG, 7 min. at 70° F: Speed, contrast close to results with Rodinal.—THE END