

The Rollei RETRO 80s, a unique new film with extremely fine grain.

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Introduction

The new Rollei retro 80S is a new film derived from the AGFA Aviphot Pan 80 aerial film. This film is coated onto a clear and transparent polyester base of 100 μm .

Its spectral sensitivity is expanded into the near infrared (figure 1). This characteristic enhances its capacities in portrait photography, or in nude photography. Indeed, this extended-red sensitivity make the little skin defects less visible.

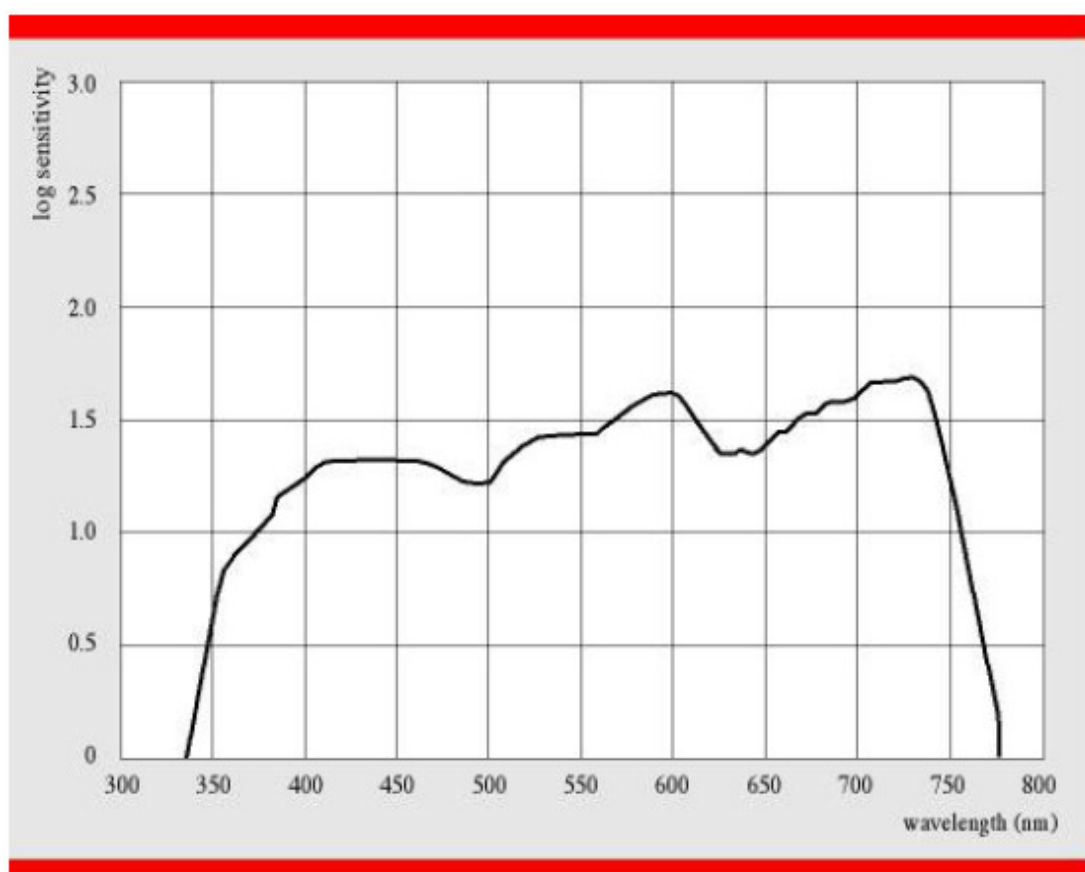


Figure 1 : Absolute spectral sensitivity of the Rollei Retro 80S
(source : Agfa-Gevaert).

In this document, I will tell you the results of my tests, realized with the Rollei Retro 80S in format 120. As this film purpose is to obtain very fine grain photographers, I used appropriate developers like Rollei Low Speed, PMK, and HC110.

I- Rollei Retro 80S and RLS :

The RLS is a Perceptol®-like developer. Very fine grain, but slower film speed. The first tests were carried out to reach a speed of ISO 25. Shots were realized with a Mamiya RB67 and a 127mm lens. Light was measured with a Sekonic L308S flashmeter.

Developing conditions :

The film was developed in a small tank (Jobo 1500 serie tank and reel), in RLS diluted 1+4 at 24°C for 10,5 minutes. During development, 5 inversions were realized every 30 seconds, as recommended by the supplier. At the end of the developing time, the film was sunk in a 3% acetic acid bath (from Téténal) as a stop bath and then 6 minutes in fixer (SuperFix from Téténal, diluted 1+4). Then the film was washed with the method developed by Didier Carré (film was washed ten times during ten minutes and the final rinse was realized with distilled water containing Ilfotol wetting agent (dilution recommended by Ilford 1+200)).

The second test was carried out to reach a speed of ISO 50. Shooting conditions were the same as previously.

To reach such a speed, the film needed to be developed 13,5 minutes in RLS in the same conditions as what I described before.

As a conclusion, Rollei Low Speed developer gives very reliable results with the Rollei Retro 80S film. Indeed it gives very thin grain, a very large grey scale, deep blacks, and highlights are not burnt. Due to the nature of this deep developer, very similar to Ilford Perceptol, nominal speed (ISO 80) of this film can't be reached.

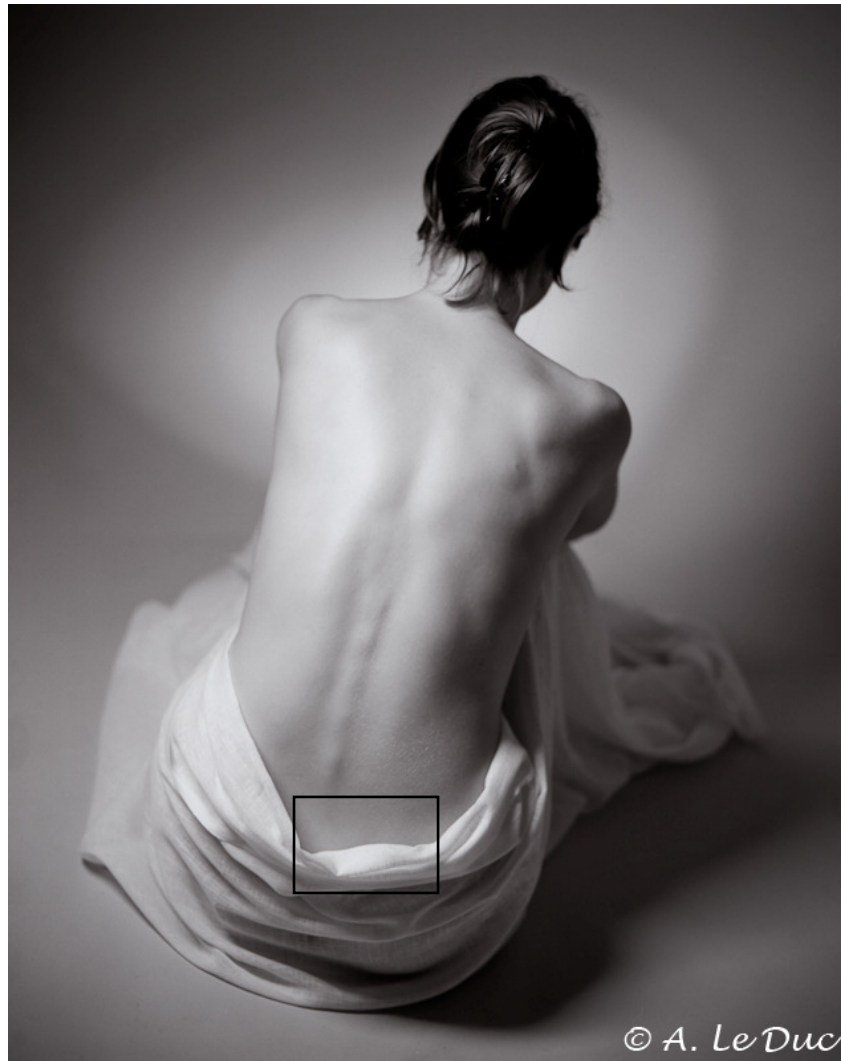


Figure 2 : Example of photograph realized with Rollei Retro 80S (rated at ISO 25) developped in RLS.
Black box correspond to the enlarged part shown in figure 3.



Figure 3 : Crop extract from figure 2 (black box)



Figure 4 : Example of photograph realized with Rollei Retro 80S (rated at ISO 50) developed in RLS.
Black box correspond to the enlarged part shown in figure 5.



Figure 5: Crop extract from figure 4 (black box)

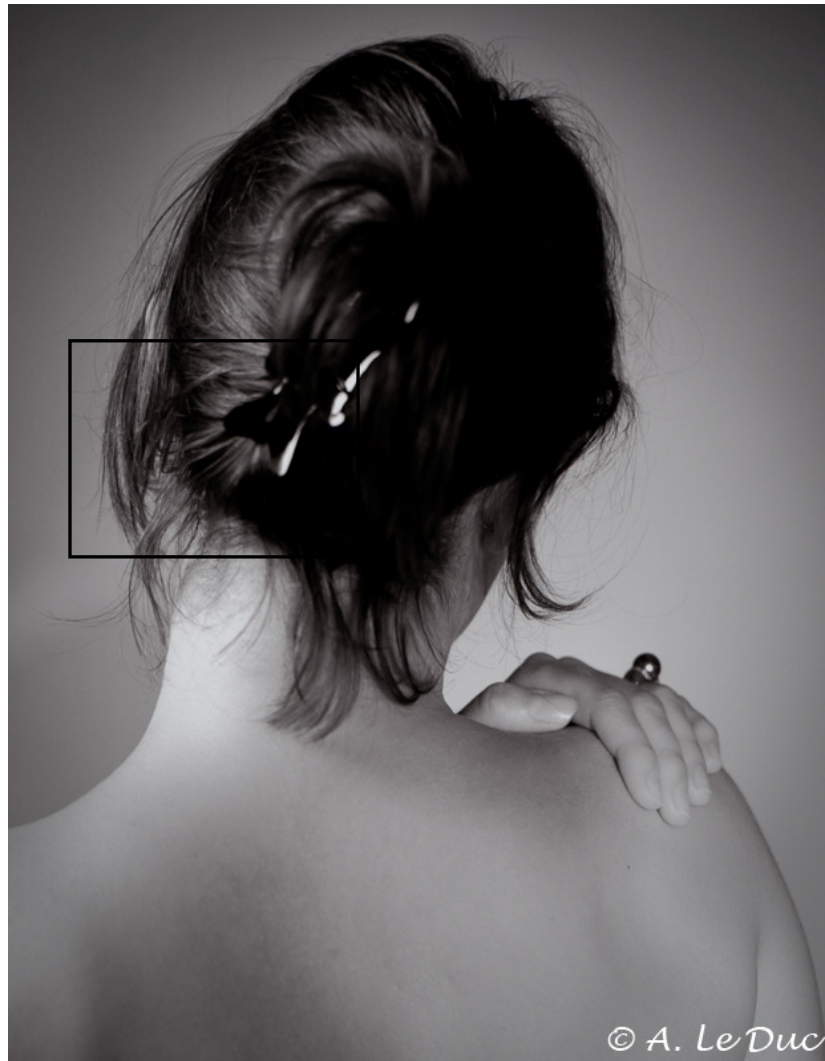


Figure 6 : Example of photograph realized with Rollei Retro 80S (rated at ISO 50) developped in RLS.
Black box correspond to the enlarged part shown in figure 7.



Figure 7: Crop extract from figure 6 (black box)

II- Rollei Retro 80S and PMK :

PMK (Pyrogallol Metol Kodalk) is a staining developer used since the XIXe century. Due to the toxicity of its main component, pyrogallol, this developer was a bit given up. A few decades ago, Gordon Hutching has reintroduced it and promoted its use, writing “the book of Pyro”.

As a lover of the former fortépan 200, I used a lot PMK that gave outstanding results of fine grain, large greyscale, and has a very compensative effect, resulting in very easy printing of the negatives. That's why I decided to test the Rollei Retro 80S in PMK. Unfortunately, the first results were very disappointing. Indeed, the staining effect was so important that film was mostly opaque. That's why modifications of the operating methods were required.

Developing conditions:

Shots were made with Mamiya RB67, 127mm lens and light was measured with my sekonic L308S.

Film was developed in PMK diluted 1+2+100 for 9 minutes at 24°C, with 2 inversions every 15 seconds. Then film was sunk in running water at 24°C for one minute and then in TF-4 fixer (diluted 1+4) at 24°C too. Contrarily to what is recommended by the supplier, I did not reuse the already used developer as an alkali bath to increase the yellow staining. This is the only way to have good results with this film in PMK. Wash was then realized as described previously.



Figure 8 : Example of photograph realized with Rollei Retro 80S (rated at ISO 80) developed in PMK. White box correspond to the enlarged part shown in figure 9.



Figure 9: Crop extract from figure 8 (white box)

III- Rollei Retro 80S and HC110 :

HC110 from Kodak is one of the most used developer in the world. Very easy to prepare, and developing times are proportional to its dilution. An example? Dilution H is twice as diluted as dilution B. Times are twice as long in H than in B! So easy. So why don't I try HC110 with the Rollei retro 80S?

Developing conditions:

Shots were made with Mamiya RB67, 127mm lens and light was measured with my sekonic L308S.

The film was developed in a small tank (Jobo 1500 serie tank and reel), in HC110 (dilution H) at 24°C for 10 minutes (11 minutes for ISO 160). During development, 10 inversions were realized every minute. Stop bath, fixing and washing were made as already described in the RLS description process.

This developer also allowed the film to reach ISO 160 speed.



Figure 10 : Example of photograph realized with Rollei Retro 80S (rated at ISO 160) developed in HC110. White box correspond to the enlarged part shown in figure 11.



Figure 11: Crop extract from figure 10 (white box)

Recommended developing times:

	Rollei Low Speed (1+4 / 24°C)	PMK (1+2+100 / 24°C)	HC110 (H / 24°C)
ISO 25	10,5 minutes	ND	ND
ISO 50	13,5 minutes	ND	ND
ISO 80	NR	9 minutes	10 minutes
ISO 160	NR	NR	11 minutes

(NR: not recommended / ND: not determined)

So in conclusion, if you want:

- very fine grain : use RLS
- box speed, compensative effect, fine grain : use PMK
- easy preparation, not expensive developer, and good compromise: use HC110

A further comparison between all the low speed films (APX25, Rollei Pan 25, Efke 25 and Rollei Retro 80S is coming...