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Data Sheet for SPUR Dokuspeed SL-N

SPUR Dokuspeed SL-N is the successor to SPUR Dokuspeed SL for pictorial development of the high resolution SPUR DSX/Agfa Copex Rapid film.

SPUR Dokuspeed SL-N offers up to one stop more film speed compared to the previous process. Base and fog at high film speeds could be reduced considerably.

All the positive features of SPUR Dokuspeed SL are maintained. Especially the long shelf life and ease of use.

Technical data for SPUR DSX/AGFA Copex Rapid films:

Film type: silver halide film with anti-halation layer and an emulsion thickness of 5 μ

Spectral sensitivity: orthopanchromatic

Filter factors: yellow +0.5 to 1 stop, orange +1 to 1.5 stops, red +4 stops, green +1 to 1.5 stops

Granularity: RMS at density 1.0 and aperture opening of 48 μ = 9

Resolution: resolution is 600 LP/mm at a contrast ratio of 1000 : 1

Reciprocity failure: 1 second +1/2 stop, 10 seconds +1 stop, 1/10000 second +1/3 stop

Exposure: Please note the following

- 1.) Because of the film base of the 135-film, light piping might occur and expose the first frames. To avoid this, the film should be stored in a black film can before and after use. The film should not be lying around without protection from light. Loading the camera should be done at not too bright light.
- 2.) High resolution films have a thinner emulsion layer thickness compared to standard films. Flatness while exposure is very important. It is recommended to close the aperture one to two stops to get enough depth of field and to compensate for any migration of the layer out of the optimal focal plane.
- 3.) The camera should have a manual adjustment for film speed.

Processing of the film: SPUR Dokuspeed SL-N has part A and part B, which are mixed in a ratio depending on the chosen exposure sensitivity. For 135-film speeds between ISO 12/12° and ISO 100/21° can be chosen. For 120-film speeds between ISO 12/12° and ISO 80/20°.

Important: All temperature data represents the temperature at the moment, the working solution is filled into the tank. It is not necessary to keep the temperature constant during development. Keeping the temperature constant (in a warm water bath for example) would falsify the results. You only have to take care that the room, the developing takes place in, has a temperature of around 20° to 21°C.

If the development is done in the summer, at higher temperatures, the developing time has to be reduced.

The developing time has to be shortened the more, the higher the room temperature is on one hand and the higher the developer temperature at the beginning of development is on the other hand. Pre-soaking is not necessary and can change the contrast. All data for developing to normal contrast can be found below. Controlling contrast is possible and can be done by extending or reducing the developing time.

Storage: You must store the SPUR DSX/Agfa Copex Rapid film in the fridge, but not the developer!

135 film: film speed ISO 12/12°

Working solution for 250 ml tank: 7.5ml part A + 7.5 ml part B, fill up to 250ml with distilled water

Working solution for 300 ml tank: 9 ml Part A + 9 ml part B, fill up to 300ml with distilled water

Developing time at 20° C: 9 minutes

Inversion: the first 30 sec constantly, then every minute once

135 Film: film speed ISO 25/15°

Working solution for 250 ml tank: 10 ml part A + 5 ml part B, fill up to 250 ml with distilled water

Working solution for 300 ml tank: 12 ml part A + 6 ml part B, fill up to 300 ml with distilled water

Developing time at 22° C: 11.5 minutes

Inversion: the first 30 sec constantly, then every minute once

135 Film: film speed ISO 50/18°

Working solution for 250 ml tank: 10 ml part A + 5 ml part B, fill up to 250 ml with distilled water

Working solution for 300 ml tank: 12 ml part A + 6 ml part B, fill up to 300 ml with distilled water

Developing time at **26° C**: 10 minutes

Inversion: the first 30 sec constantly, then every minute once

135 Film: film speed ISO 100/21°

Working solution for 250 ml tank: 10 ml part A + 5 ml part B, fill up to 250 ml with distilled water

Working solution for 300 ml tank: 12 ml part A + 6 ml part B, fill up to 300 ml with distilled water

Developing time at **28° C**: 12 minutes

Inversion: the first 30 sec constantly, then every minute once

120 Film: film speed ISO 12/12°

Working solution for 500 ml tank: 15 ml part A + 15 ml part B, fill up to 500 ml with distilled water

Working solution for 600 ml tank: 18 ml part A + 18 ml part B, fill up to 600 ml with distilled water

Developing time at **20° C**: 8 minutes

Inversion: the first 30 sec constantly, then every minute once

120 Film: film speed ISO 25/15°

Working solution for 500 ml tank: 20 ml part A + 10 ml part B, fill up to 500 ml with distilled water

Working solution for 600 ml tank: 24 ml part A + 12 ml part B, fill up to 600 ml with distilled water

Developing time at **20° C**: 10.5 minutes

Inversion: the first 30 sec constantly, then every minute once

120 Film: film speed ISO 50/18°

Working solution for 500 ml tank: 20 ml part A + 10 ml part B, fill up to 500 ml with distilled water

Working solution for 600 ml tank: 24 ml part A + 12 ml part B, fill up to 600 ml with distilled water

Developing time at **26° C**: 10 minutes

Inversion: the first 30 sec constantly, then every minute once

120 Film: film speed ISO 80/20°

Working solution for 500 ml tank: 20 ml part A + 15 ml part B, fill up to 500 ml with distilled water

Working solution for 600 ml tank: 24 ml part A + 18 ml part B, fill up to 600 ml with distilled water

Developing time at **28° C**: 12 minutes

Inversion: the first 30 sec constantly, then every minute once

Further Processing Notes:

1.) Stop bath

After development no water should be used. Either use a stop bath or directly use an acidic fixer.

2.) Fixing and washing

Fixing time is only 30-60 sec. For archival processing, a washing time of 5 min is sufficient.

3.) Wetting agent and drying

The wetting agent solution should be less concentrated than for conventional films. It is recommended to use a separate container for the wetting agent treatment to avoid wetting agent contaminating the developer at the next developing process.

Remains of wetting agent can cause the developer to foam, which might result in developing errors.

After the wetting agent, we recommend to wipe the film with a white kitchen paper without color print to shorten drying time.

4.) Shelf Life

SPUR Dokuspeed SL-N has a long shelf life. **Part A** contains the developing agents and is subject to oxidation, like all developers. It is recommended to use protection gas after the bottle has been opened. The original bottle is made of PET and is airtight. The unopened bottle has a shelf life of 3-4 years. **Part B** contains no developing agents and can be kept indefinitely. Protection gas is not necessary. Working solutions can be kept around one week in bottles which are filled to the brim (no oxygen).

5.) Capacity of the working solution

250ml or 300ml working solution (depending on tank size) are enough to develop one 135-film. With 500ml or 600ml two 135 or two 120-films can be developed. The 120-films can be developed at the same time (two films on one reel) or after each other. It is not necessary to extend the time if the films are developed one after the other. The second development should be done within the shelf life of the working solution.