FUJIFILM
Value from Innovation

AF3-0258E

Product Information Bulletin

NEOPAN 100 ACROSⅡ (135)

1. FEATURES AND USES

NEOPAN 100 ACROSⅡ is a medium-speed, ultrahigh-image-quality black-and-white negative film that boasts the world's highest standard in grain quality among ISO-100 films, rich gradation and outstanding sharpness. These features make it an excellent choice for a wide range of photographic applications, including portraits, landscape, architectural subjects, product photography, photomicrography, duplication work and astrophotography.

- **World's Highest Standard in Grain Quality**
  Through the incorporation of Fujifilm's new proprietary "Super Fine-Σ Grain Technology", this film delivers the world's highest standard in grain quality among ISO-100 black-and-white films. Its fine grain, along with its superb grain alignment and rich gradation, makes possible smoother and sharper textural depiction, even in big enlargements.
- **Excellent Processing Characteristics**
  By incorporating the newly developed "P.I.D.C. (Precision Iodine Distribution Control) Technology", NEOPAN 100 ACROSⅡ provides stable processing results not only during manual processing with all kinds of developers and fixers, but in every type of automatic processor as well.
- **Improved Reciprocity Characteristics**
  This film exhibits extremely minimal reduction in sensitivity even in extended, low-light exposures, thus producing excellent results in astronomical photography and night scenes, as well as architecture and other subjects requiring long exposures.

2. SPEED

ISO100/21°

3. COLOR SENSITIVITY

Orthopanchromatic

4. FILM SIZES, BASE MATERIAL AND THICKNESS

135……36-exp. (with patrone)
Thickness: 0.134mm
TAC (Cellulose Triacetate), Gray base

5. EXPOSURE GUIDE

Use an exposure meter for exposure determination. If a meter is not available, refer to the following table.

Light Conditions	Seashore or Snow Scenes under Bright Sun	Bright Sunlight	Hazy Sunlight	Cloudy Bright	Cloudy Day or Open Shade
Lens Aperture	f/16	f/11	f/8	f/8	f/5.6
Shutter Speed (sec.)	1/250	1/250	1/250	1/125	1/125

- **Reciprocity Characteristics**
  No exposure compensation is required for exposures at shutter speeds of less than 120 seconds. However, for exposures of 120 seconds or longer, provide the compensation indicated below.

Exposure Time (sec.)	120 - 1000
Exposure Corrections*	+1/2

* A "+" followed by a number indicates the required increase in lens opening.

- The use of an exposure meter is recommended, especially for indoor photography due to the wide variation in brightness levels that may be encountered. Use of a tripod or other means of stabilizing the camera is recommended for exposures at shutter speeds of less than 1/100 second

Flash Exposure

- **Shutter Speed**
  When electronic flash exposures are to be made, the shutter speed for cameras with a focal-plane shutter should be set in accordance with the camera instructions. In the case of lens-shutter cameras (such as compact cameras, certain medium-format cameras and studio cameras), the shutter speed can be varied.
- **Lens Aperture**
  The following formula can be used to obtain satisfactory lens opening.

$$\text{Lens Aperture (f-number)} = \frac{\text{Electronic Flash Guide Number (at ISO 100)}}{\text{Electronic Flash-to-Subject Distance (meters or feet)}}$$

- When an automatic electronic flash unit is employed, set the film speed at ISO 100. Since the amount of light reflected onto subjects from surrounding surfaces will differ with the conditions, refer to the flash unit instructions.

Filter Recommendations

When a filter is to be used, multiply the normal exposure by a proper filter factor using the table below as a guide.

Filter	**Fuji Filter**	SC-39 (UV)	SC-48 (yellow)	SC-56 (orange)	SC-60 (red)
	Wratten Filter	No.1A	No.8	No.21	No.25
Filter Factor	**Daylight**	1.0	2.0	4.0	8.0
	Tungsten	1.0	1.5	3.0	6.0

6. SAFELIGHT

Handle the film in total darkness. If a safelight must be used, a Fuji Safelight Filter SLG-4* (dark green) with a20 watt bulb may be used at a distance not less than 1meter (3.3 ft.). In such cases, use the safelight for as short a period as possible and only towards the end of the development period.

7. PROCESSING

(1) Development

To prevent the appearance of development marks and assure uniform finish, agitate the developer continuously for the first minute and for five seconds every minute thereafter.

- **Development Conditions (Small Tank Development)**

The following table shows development times and temperatures for each developer.

Unit: minutes

Developer	Temp. / EI*	18°C (64°F)	20°C (68°F)	22°C (72°F)	24°C (75°F)	26°C (79°F)
Microfine	100	12 1/2	10	8 1/2	7	5 3/4
Microfine (1:1)**	100	--	13	10 1/2	8 3/4	7 1/4
Super Prodol (SPD)	80	5 1/2	4 1/4	3 1/2	--	--
SPD (1:1)**	80	7 3/4	6 1/2	5 1/2	4 1/2	3 3/4

(When using developers other than ours) Unit: minutes

Developer	Temp. / EI*	18°C (64°F)	20°C (68°F)	22°C (72°F)	24°C (75°F)	26°C (79°F)
D-76	100	8 1/2	7 1/4	6 1/4	5 1/4	4 1/2
	200	12	10	8 1/2	7	6
D-76 (1:1)**	100	13	10 1/2	8 3/4	7 1/4	6 1/4
ID-11	100	8	6 3/4	5 3/4	4 3/4	4

When deep tanks are used, development times should be extended by 5 to 10%, compared to those used with small tanks.

* EI (Exposure Index) is the exposure determination designator and the camera or exposure meter ISO speed should be set to this value.

** The (1:1) parenthesized ratio given in the foregoing table indicates that one part water is to be added to one part developer.

(2) Stop Bath

For the stop bath a 1.5 % acetic acid solution is recommended. Immerse the film in the bath at 15 to 25°C (59 to 77°F) for 20 to 30 seconds while agitating.

(3) Fixing

Fujifix Super-L is recommended for fixing. The recommended fixing times at 15 to 25°C (59 to 77°F) are shown below. The required fixing time is twice the time it takes for the film to become clear. In order to maintain fixing uniformity and prevent film staining, agitate the fixing solution continuously for the first 30 seconds.

Fixer	Type	Fixing Time (min.)
Fujifix Super-L	Acid hardening rapid concentrated fixer	5 to 10

(4) Washing

Wash the film in running water for 20 to 30 minutes. The use of Fuji QW (quick washing agent) is recommended when a shorter washing time is desired or when the processed film shows a slight reddish purple cast. When using Fuji QW, pre-wash the film for about 30 seconds, immerse it in Fuji QW solution for 1 minute, and wash it in running water for 5 minutes. The required wash water temperature is 15 to 25°C (59 to 77°F).

(5) Drying

After washing, wipe both sides of the film very carefully with a soft sponge, then immerse it in a 1-to-200 solution of Fuji Driwel for 30 seconds and hang it up for uniform drying. For natural drying, hang the film in a well-ventilated dust free location.

To protect important negatives from oxidizing gases that cause color fading, it is recommended that the film be treated with Fuji Ag Guard. In this case, use Fuji Ag Guard instead of Fuji Driwel in the procedure.

8 PROCESSING IN AUTOMATIC PROCESSORS

Development Conditions for Hanger–transport Type Processors

Developer	EI	Temperature	Time **
Minidol Fine*	100	24°C (75°F)	8 3/4 min.

* Created by adding DP PAPINAL C-S (Starter) to Minidol Fine R (Replenisher).

** Since the final processing results are affected by such factors as the agitation and circulation conditions of the processor, it is recommended that test prints be made in order to determine the proper development time.

9. PRINTER CONDITIONS

This film can be printed on the same printer setup with results similar to NEOPAN 100 ACROS.

10. PROCESSED FILM STORAGE

Exposure to light, high temperature and humid conditions can cause color changes in processed films. Therefore, place such films in sleeves and store them in dark, dry, cool and well ventilated locations under the following conditions.

- **Medium-term storage:**
  Below 25°C (77°F) at 30% to 50% RH
- **Long-term storage:**
  Below 10°C (50°F) at 30% to 50% RH

11. DIFFUSE RMS GRANULARITY VALUE

DIFFUSE RMS GRANULARITY VALUE : 7

Processing: Microfine

Micro-densitometer Measurement Aperture: 48 μm in diameter.

Sample Density: 1.0 above minimum density

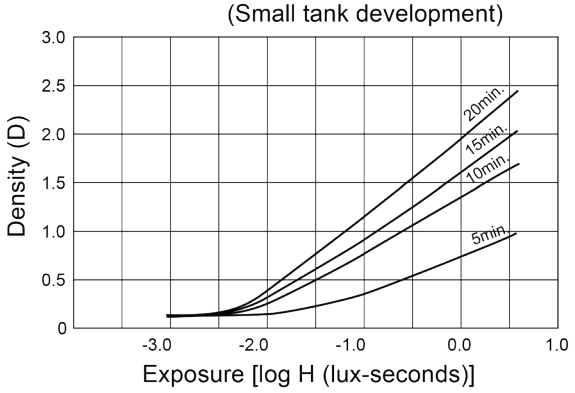
12. RESOLVING POWER

Processing: Microfine, 20°C (68°F), Small tank development

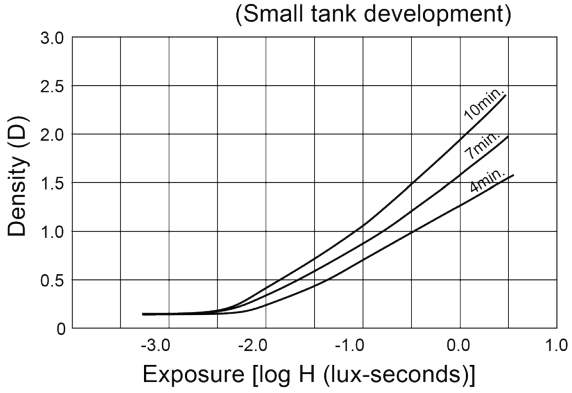
Chart Contrast	1.6 : 1 ····· 60 lines/mm
Chart Contrast	1000 : 1 ····· 200 lines/mm

13. CHARACTERISTIC CURVES

Processing: Microfine, 20°C (68°F)
(Small tank development)

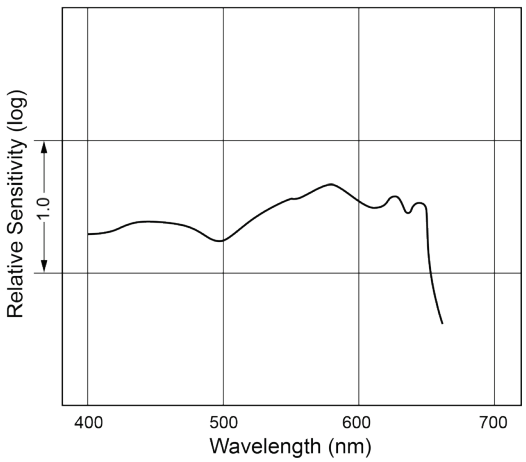


Processing: D-76, 20°C (68°F)
(Small tank development)



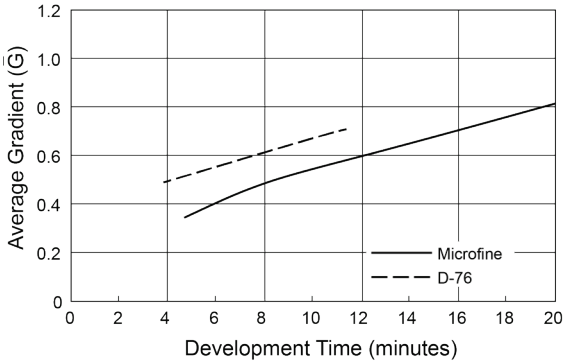
14. SPECTRAL SENSITIVITY CURVE

Spectrogram to Daylight (5400K)



15. TIME-Ḡ CURVES

Processing Temperature: 20˚C (68˚F)



NOTICE The data herein published were derived from materials taken from general production runs. However, changes in specifications may occur without

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