

AVITONE P1P-HR AND P3P-HR

Negative acting, blue sensitive, high-resolution continuous tone film

Avitone P1p-HR and P3p-HR are negative acting, blue sensitive, high-resolution continuous tone films for copying black-and-white originals.

Thickness of the polyester base:

Avitone P1p-HR: 0.10 mm (0.004")

Avitone P3p-HR: 0.18 mm (0.007")

to provide excellent dimensional stability

■ Applications

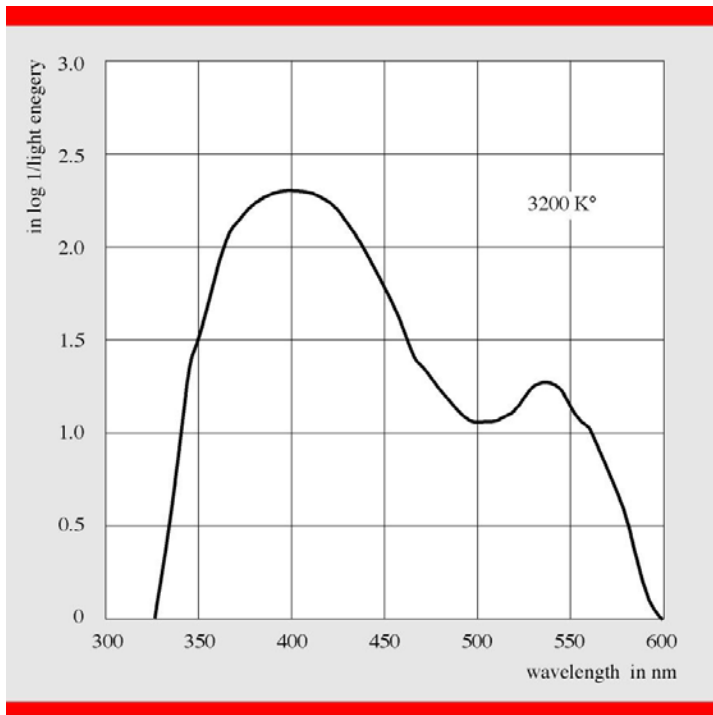
- Duplication of continuous tone negatives, either in contact or by projection (for enlargements).
- Duplication for cartographic and military applications.
- Reproduction of identical copies is easy. The original film contrast can be slightly enhanced or reduced, depending on the developer and developing parameters such as temperature and processing speed. Since the film can reduce contrast, strong contrast originals can be copied to duplicates with reduced image contrast. In G74c developer the average gradient of Avitone P1p-HR and P3p-HR can vary between 0.8 and 1.0.
- Ideal films for copying originals taken at high altitude reconnaissance flights: processed in G74c + AD74 additive, Avitone P1p-HR and P3p-HR can reach an average gradient between 1.1 and 1.3.
- Easy scanning on digital scanners due to the low densities in an image copied onto P1p-HR. A noise-free image signal is produced, even for highlight details. Dark densities will reveal their details, because — due to the low contrast image properties — the scanner is able to detect a multiple grey level differentiation.

■ Characteristics

- Very high resolution, making the films particularly suitable for copying high and very high resolution recording films, such as Aviphot Pan 80.
- Very low granularity, due to the use of micro-grain silver halide crystals.
- High speed compared to other high-resolution duplication films.
- Neutral grey, low fog copies.
- Dimensionally stable duplicates can be made under strictly monitored processing conditions, such as homogeneous pressure/vacuum on the contact frame, a maximum drying temperature of 45 °C/113 °F and a relative humidity between 30% and 60%.
- Anti-static, before and after processing.
- Can be used in processors with short fixing and short drying times.
- High scratch-resistance and secure film conveying in fast duplicators, due to the special non-gelatine back layer.

■ Photographic data

Spectral sensitivity



Resolution

TOC (Target Object Contrast) measured on a contact copy, made on a commercial vacuum frame, with machine processing in Gevatone 66, G74c developer at 30 °C, 42 s developing time.

TOC 1000:1 = 406 lp/mm or 812 dots/mm.

TOC 1.6:1 = 128 lp/mm or 256 dots/mm.

Granularity

RMS < 5.

■ Production guidelines

Darkroom lighting

Red (R6) filter over a 25 W lamp, at a minimum distance of 1.25 m from the film.

Exposure example

Klimsch contact frame with halogen point light, light intensity 52 lux.

Exposure time 12 s, Dmin original 0.3 — Dmax original 1.3.

Exposure time 24 s, Dmin original 0.6 — Dmax original 1.6.

Processing

Avitone P1p-HR and P3p-HR can be processed in machine or in tray.

Automatic processing in Gevatone 66

The developing time can be varied between 20 and 70 seconds, depending on the required average gradient.

Developer: G74c or G74c + AD74.

Temperature: 30 °C/86 °F.

Replenishment: 250 ml/m² (guideline).

Mixing procedure: see info sheet on G74c / G74c + AD74.

Fixer: PFIX (or G333c).

Temperature: 30 °C/86 °F.

Replenishment: 500 ml/m² (guideline).

Washing

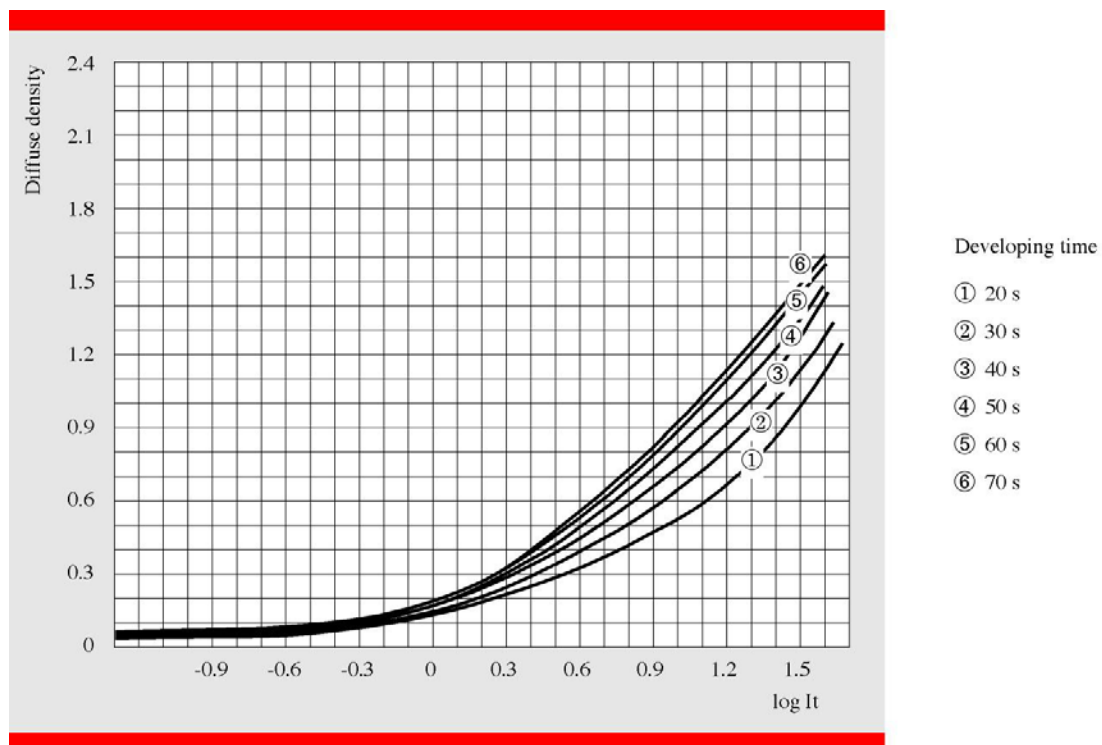
Minimum 6 l/min at 30 °C/86 °F.

Minimum 12 l/min at 20 °C/68 °F.

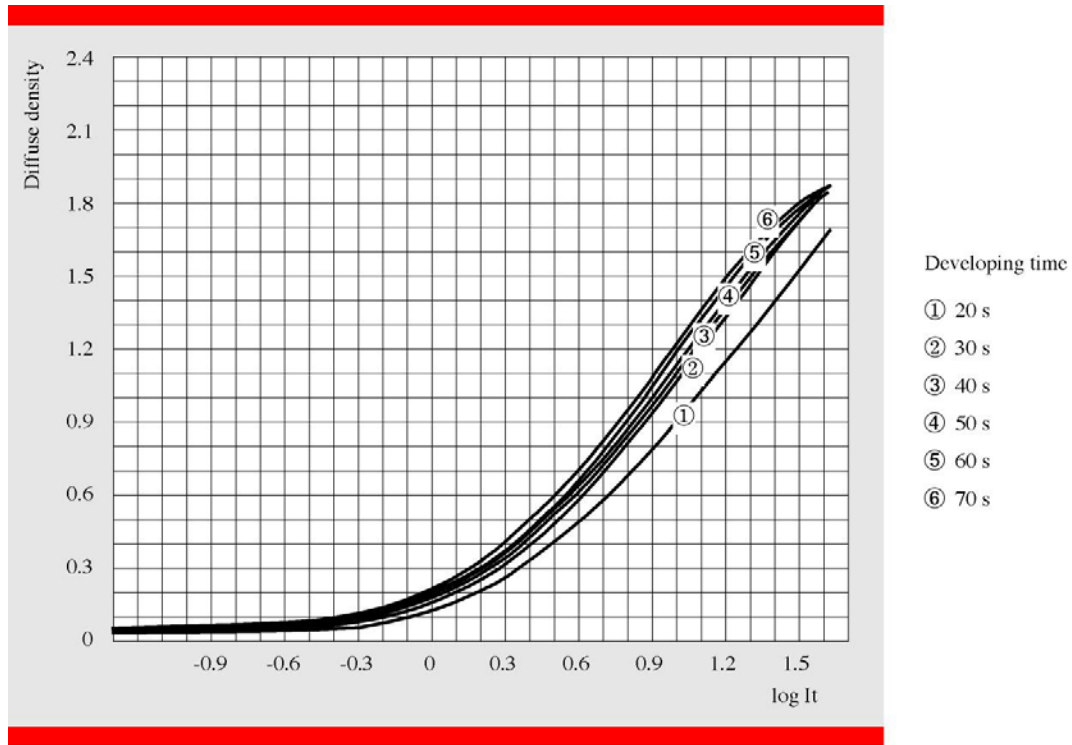
Drying at a maximum temperature of 45 °C/113 °F.

Characteristic curves

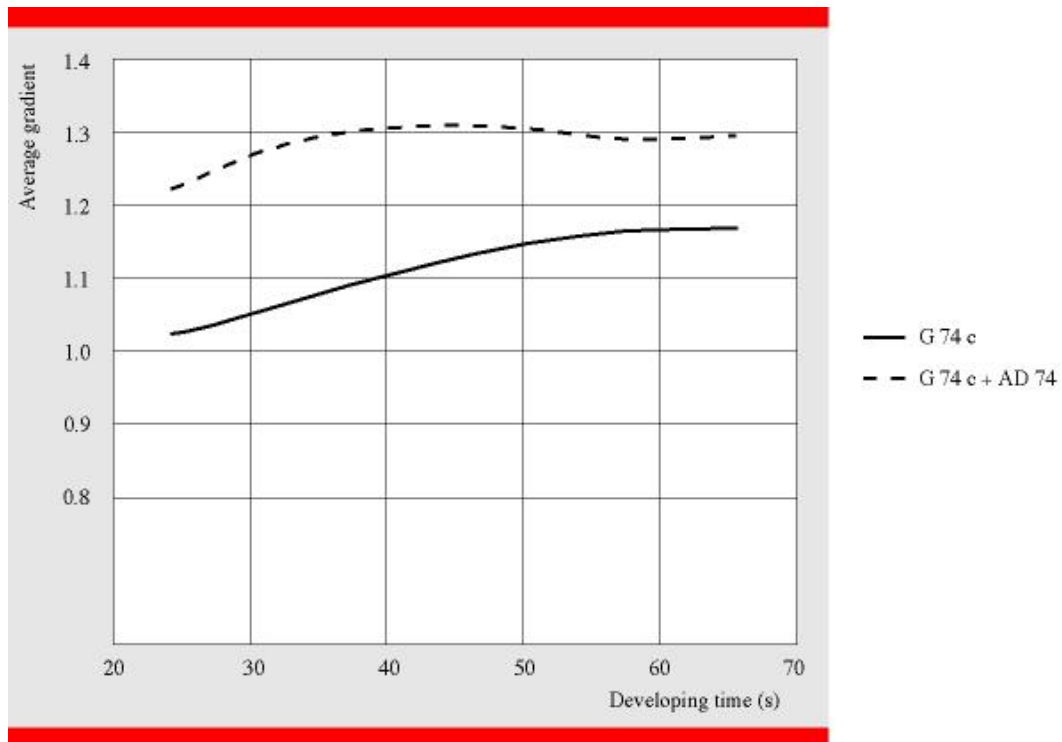
- Processing in G74c at 30 °C/86 °F



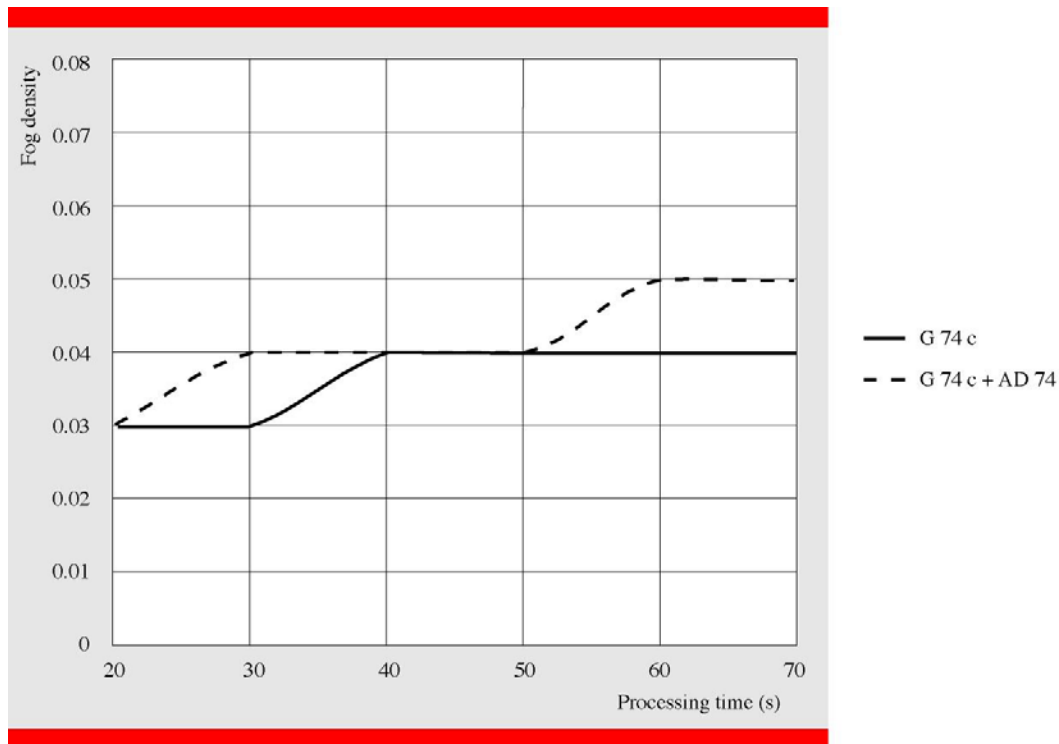
- Processing in G74c + AD74 at 30 °C/86 °F



Average gradient/time curve



Fog/time curve



Automatic processing in AgfaLine processor, developer PDEV (or G101c)

The developing time can be varied between 20 s and 25 s, depending on the required average gradient.

Developer: PDEV (or G101c).

Temperature: between 35 °C/95 °F and 38 °C/100 °F.

Replenishment: 250 ml/m² (guideline).

Fixer: PFIX (or G333).

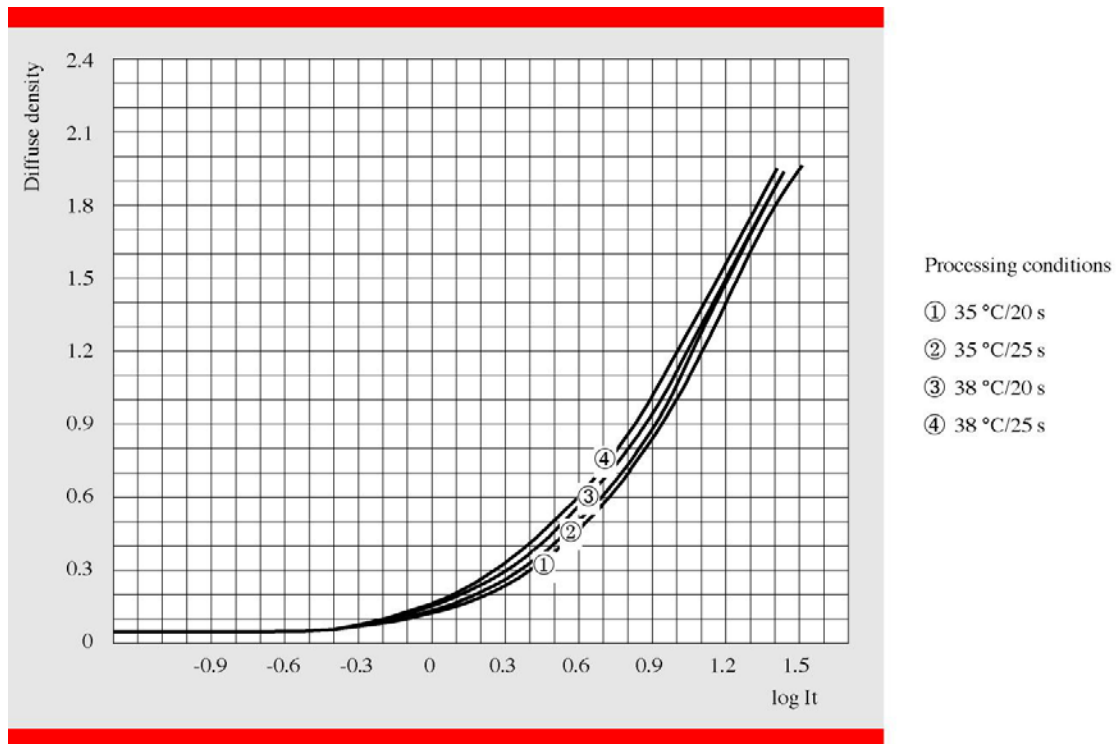
Temperature: between 35 °C/95 °F and 38 °C/100 °F.

Replenishment: 500 ml/m² (guideline).

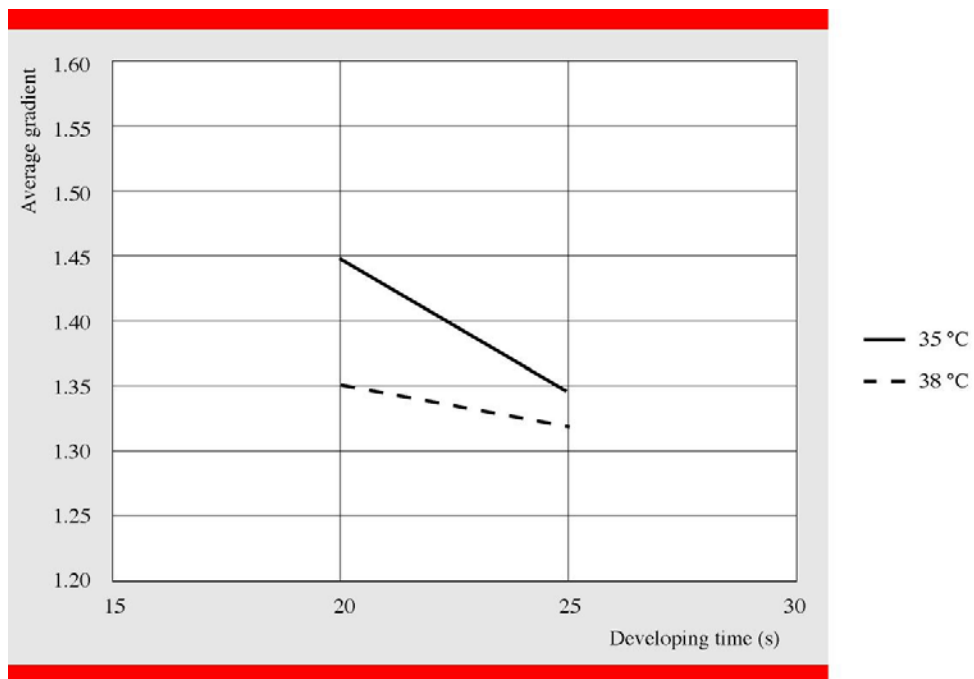
Washing: 4 l/min at 30 °C/86 °F.

Drying at a maximum temperature of 45 °C/113 °F.

Characteristic curves



Average gradient/time curve



Fog level

0.03 for all conditions.

■ Storage

Avitone P1p-HR and P3p-HR have to be kept in a dry and cool place, preferably at a temperature between +2 °C/36 °F and 10 °C/50 °F. The film should be taken out of the cool room at least 30 minutes before use. Keeping the film in the deep freezer (at -10 °C/+14 °F) considerably delays the ageing process and guarantees longer life. Film which has been kept in deep freeze has to remain in room temperature for at least 8 hours before use.

■ Assortment

Please contact your local Agfa representative.