Technical Information

New film for electron micrography :

SCIENTIA 23D56

General properties

Very fine grain emulsion on polyester base, specially intended for electron micrography. The film has a brownish-red antihalation backing. The emulsion side can be easily identified, even in the darkroom, since that side is lighter than the antihalation coating. Ideal for high quality enlargements.

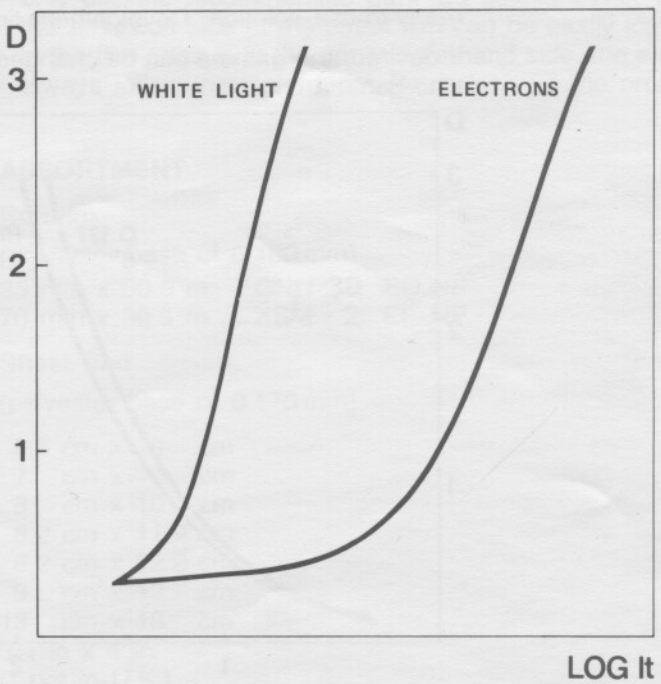
Base

The polyester base of Scientia 23D56 sheet film is 0.170 mm thick and ensures high dimensional stability and flatness. The rollfilm has a polyester base of 0.100 mm thickness and is highly suitable for use in miniature cameras.

Over-all sensitivity

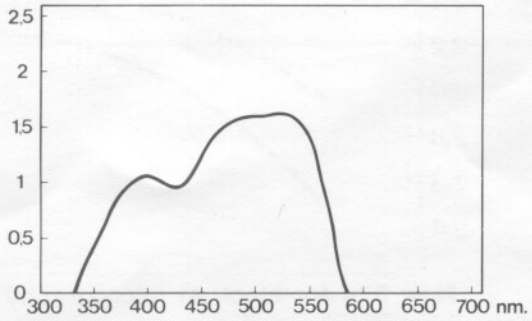
The electron sensitivity is approx. 3 times higher than that of the former Scientia 23D56 film. Consequently, exposure time may be shortened accordingly.

As the electrons penetrate into the emulsion to only a limited depth, especially when low voltage is being used, there will be a considerable difference between the characteristic curves of films exposed to light and films exposed to electrons.



Spectral sensitivity

Orthochromatic - sensitive up to 580 nm. Consequently, green digits will be clearly rendered.



Spectrogram with tungsten light

Fog

When the recommended development technique is followed fog level is exceptionally low.

Granularity

The granularity will depend on the developer being used and the development time. When the recommended processing method is followed fine grain results will be achieved.

Resolving power

200 lines/mm (provided that processing is carried out according to the instructions).

PROCESSING

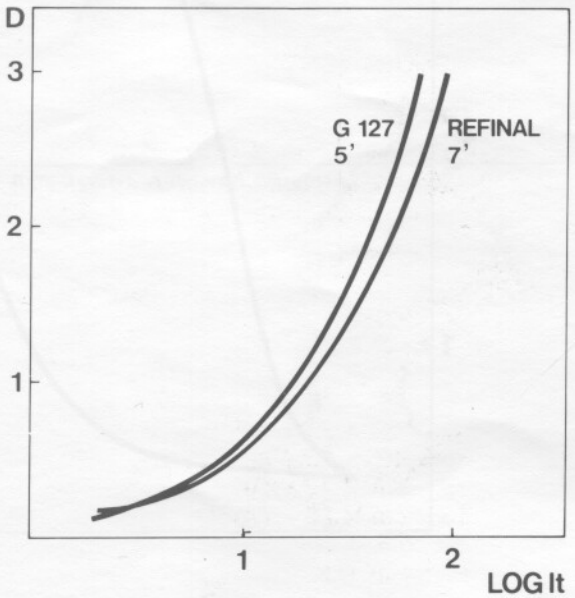
Recommended darkroom safelight filter : R 4 (dark-red)
Development : Recommended developers
Refinal* - fine-grain developer
- in powder form (packings for 1 litre, 5 litres and 35 litres of ready-to-use solutions)

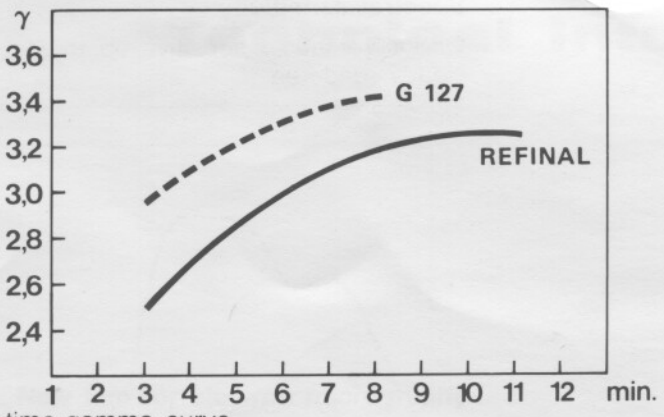
Development time, at 20° C : 7 minutes.

(* not available in UK)

G 127 - concentrated X-ray developer, in packings of 5 litres for 30 litres of ready-to-use solution. Development time at 20° C : 5 minutes.

If desired, the gamma can be changed by adapting the development time (see time-gamma curve)





time-gamma curve

Intermediate rinsing

After development, an intermediate rinse of the film is carried out for 15 seconds in running water.

Fixing

For fixing, any fixing bath may be used.

Recommended fixer : G 321

G 321 - concentrated solution in packs of 2 litres (not available in U.K.), 5 litres and 20 litres, respectively to make 10, 25 and 100 litres working solution.
- fixing time at 20° C : at least 5 minutes.

Washing

At least 15 minutes in running water. Final bath Agepon (1 ml per liter) in water, to avoid drying marks.

Drying

In a dust-proof room or drying cabinet.

A few hints

- always keep the film dry and cool $\leqslant$12° C RH = 50 %
- avoid finger prints on the emulsion
- only use the recommended dark red safelight filter (R 4)
- the emulsion side of the sheet film can be easily identified. When the notch in the film edge is at the upper right-hand side, the emulsion is towards you.
- always follow the instructions for making up the processing solutions.

ASSORTMENT

Rollfilm

(polyester base of 0.100 mm)

35 mm x 30.5 m	CNU	30	EO	NP
70 mm x 30.5 m	XSM	2	EI	NP

Sheet film

(polyester base of 0.170 mm)

6.5 cm x 9 cm
7 cm x 7 cm
8 cm x 10 cm
8.2 cm x 11.9 cm
8.2 cm x 12.2 cm
9 cm x 12 cm
13 cm x 18 cm
3¼ in x 4 in.
(* not in U.K.)

Refinal and Agepon are registered trade marks of Agfa-Gevaert, Antwerp/Leverkusen.

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