

# AVITONE CP 70

## Colour Negative Copying Film

AVITONE CP 70 is a high-resolution colour copying film for making positives from aerial colour negatives. The film can be processed in standard AP 70 chemistry (equivalent to C-41) for negative processing or in AP 94 chemistry (equivalent to RA-4) for processing copy films. Thickness of the polyester base: 0.175 mm (7 mil).

### Applications

The film is used for making high quality positive copies from aerial negatives, for use in analytic stereo plotters. The superior colour quality of masked colour negatives is kept in the CP 70 copy, which can be scanned digitally without problems. The copy even permits faster scanning than the masked colour negative itself.

There is no detectable quality loss on CP 70 copies from high resolution colour negative films, such as AVIPHOT Color X100, HX-100 and N400.

AVITONE CP 70 is used in professional labs for printing on film all sorts of positive images from colour negatives or for printing any kind of colour negatives in professional photo and aerial applications. At some occasions CP 70 films are used as recording films in order to generate very high resolution large size negatives for scanning purposes.

### Characteristics

- Very high resolution.
- Very low granularity.
- Very good batch-to-batch consistency.
- Excellent reproduction of details in shadow and highlight areas.
- Medium colour saturation and brilliance.
- Good colour stability because of the use of true colour dyes.
- Coloured inter-layers are reducing halation effects of light scattering in the emulsion. Three anti-halation inter-layers are providing unrivalled sharp copies. This extreme sharpness, combined with the small grain size, makes CP 70 suitable for copying aerial high resolution films, colour microfilms or any other kind of extremely fine grain emulsions.
- The emulsion is covered with a protective layer, which contains lubricants against scratching during multiple manipulations. Scratching of the film back, visible at scanning, is prevented by the gelatine back coating.
- Reliable processing in AP 70 (equivalent to C-41), the same chemistry and replenishment settings as used for processing AVIPHOT Color negative films.
- Rapid and reliable processing in AP 94 (equivalent to RA-4), with the same chemistry and replenishment settings as for RAPITONE CP 94 colour copy film.
- Good dimensional stability due to the 175 mm polyester base, which allows the use of automatic duplicating equipment for sheets and rolls. The polyester base has a permanent anti-static layer.

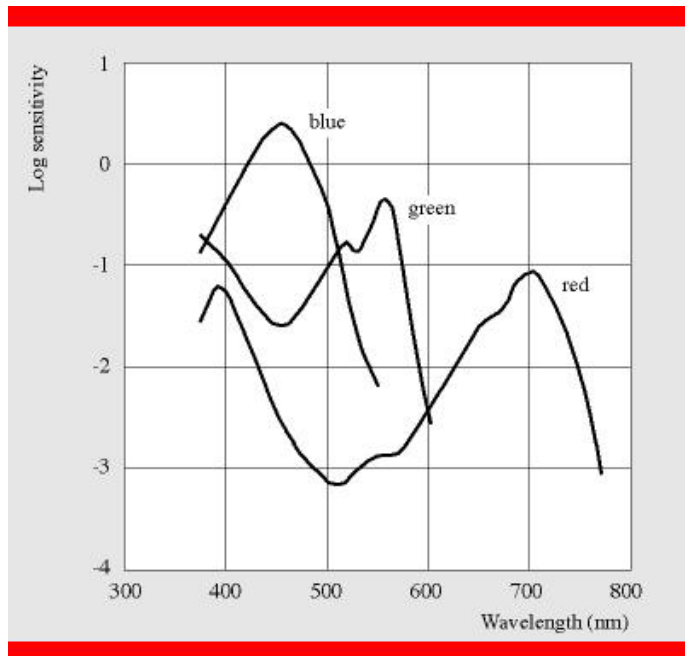
## ■ Photographic data

### Colour sensitivity

Panchromatic, 400 to 750 nm.

### Spectral sensitivity

Spectral sensitivity curves:



The curves refer to a density of 1.0 in transparency. Sensitivity is reciprocal of the exposure ( $\text{mJ}/\text{m}^2$ ) required to produce the indicated density.

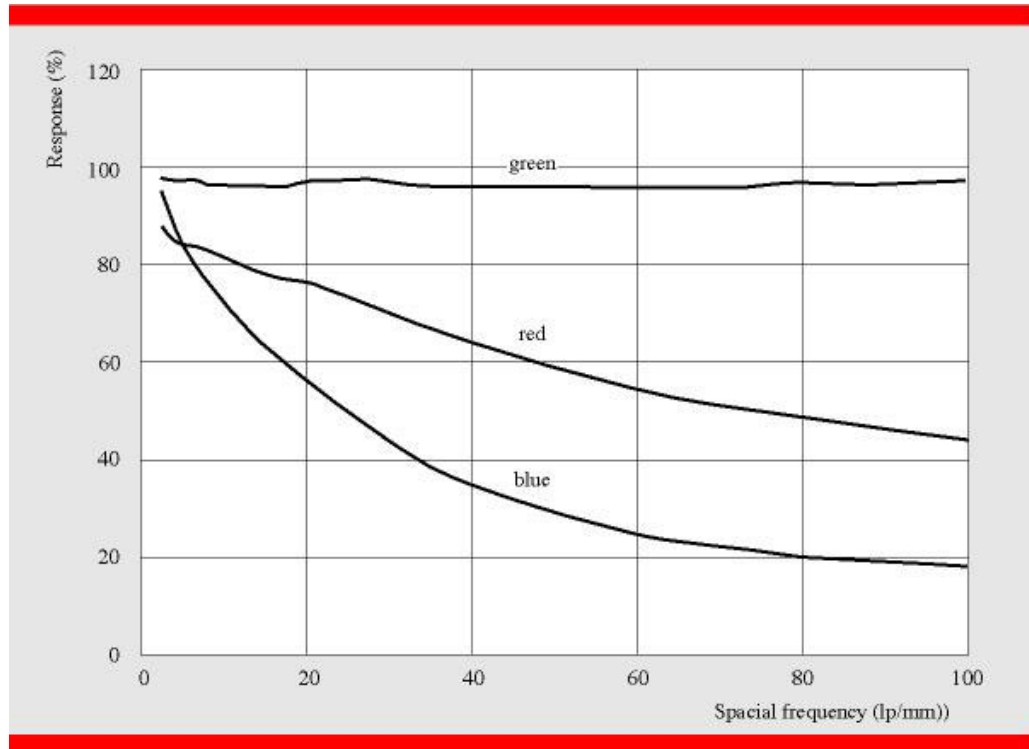
### TOC (Target Object Contrast)

Measured after contact exposure on a contact frame and processed in standard C-41:

TOC 1000:1 = 912 lp/mm or 1824 dots/mm

TOC 1.6:1 = 256 lp/mm or 512 dots/mm.

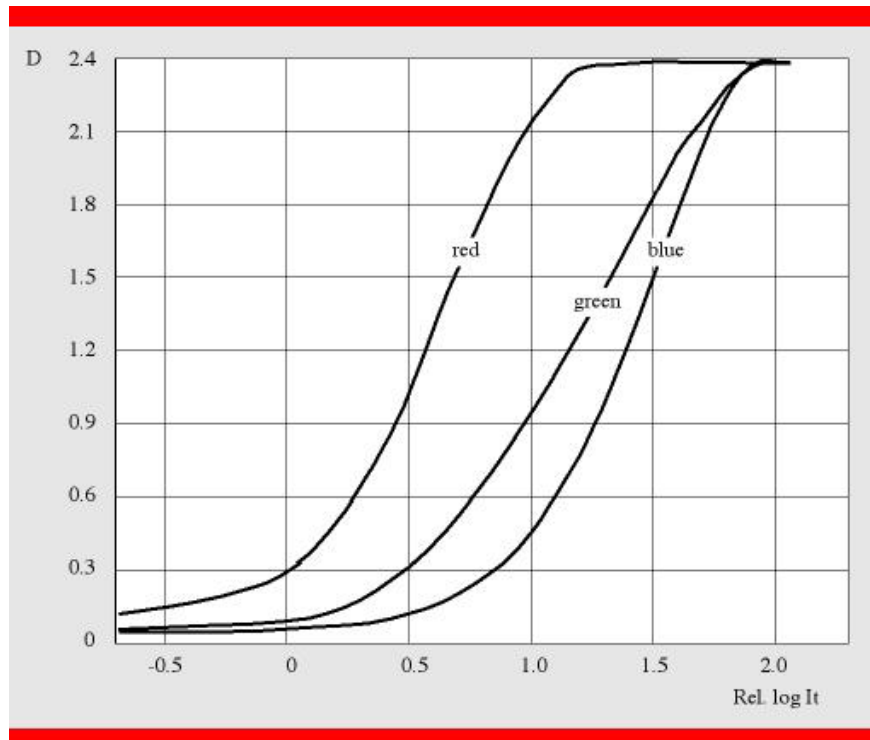
## Modulation Transfer MTF curves



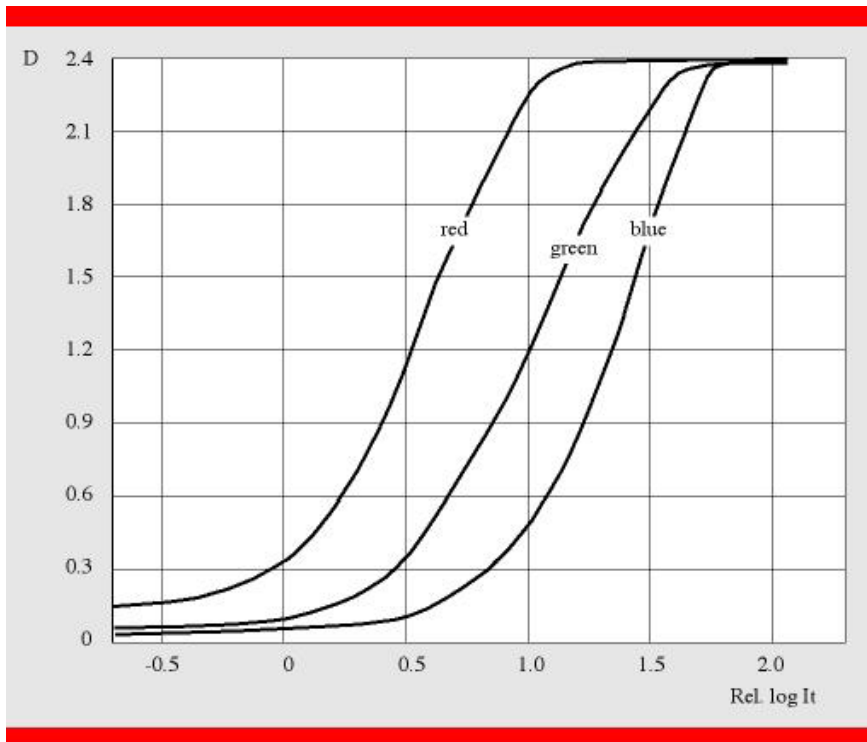
## Colour density curves

Exposure: halogen light 15 s (exposure 13 lx).

Process: AP 70, developer at 37.8 °C/100 °F for 3 min 15 s.



Exposure: halogen light 15 s (exposure 13 lx).  
Process: AP 70, developer at 37.8 °C/100 °F for 4 min.



## ■ Production Guidelines

### Darkroom lighting

:Avitone CP 70 should only be handled in absolute darkness.

### Exposure

:Avitone CP 70 can be exposed in the most contact frames and enlargers. The film is particularly suitable for a colour temperature of approx. 3000K.

### Processing

:Avitone CP 70 can be processed in :Agfacolor Process AP 70 Professional chemistry (compatible with C-41) and in :Agfacolor Process AP 94 chemistry. Processing in AP 94 generates a slight blue cast, but also dramatically shortens the processing cycle .

## ■ Storage

### Raw stock

Store in original packaging, at temperatures below 20°C/68°F.

When stored at lower temperature, leave the film in its closed packaging and allow sufficient time (30 minutes before use) to warm up to room temperature, in order to prevent condensation moisture.

### Exposed film

The latent image characteristics of :Avitone CP 70 are excellent.

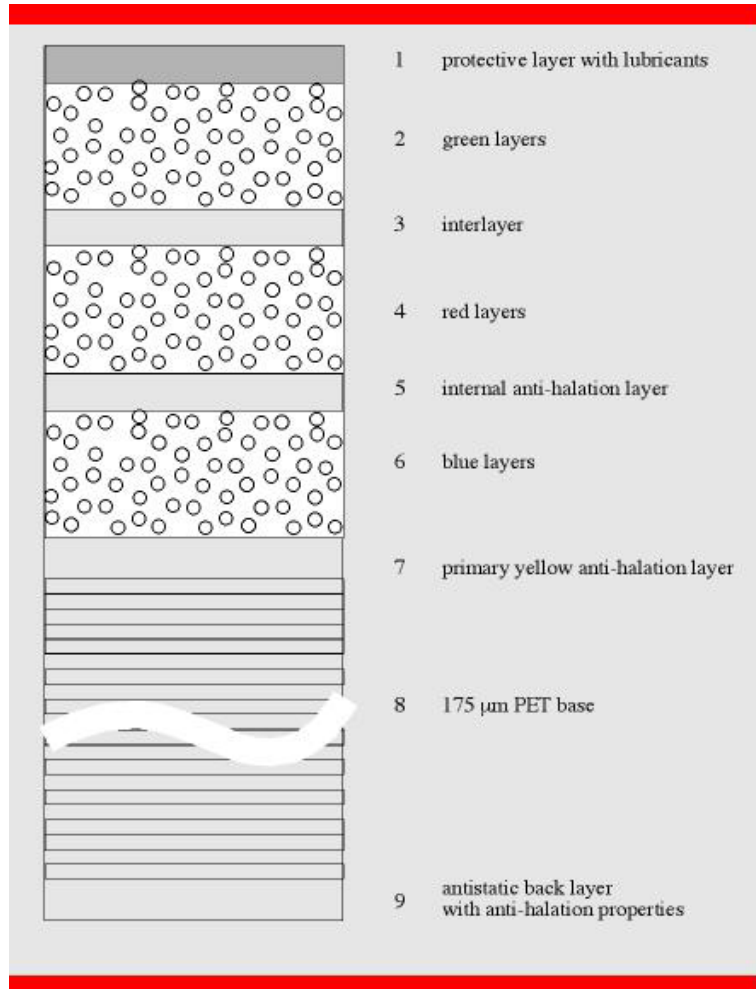
However, all exposed film should be developed as soon as possible. If immediate processing is not possible, exposed film should be stored at low temperature and in air-tight conditions.

### Processed film

A cool and dry environment is recommended for long-term archival storage, preferably at a temperature between +2°C/36°F and +10°C/50°F.

## ■ Film structure

The light-sensitive emulsions are gelatine-based. The protective layer and the interlayers are also gelatine layers.



## ■ Assortment

:Avitone CP 70 - Standard sizes\*

Size		Spool/Winding/Perforation	Order code
240 mm x 30.5 m	9.7/16" x 100 ft	UCT76 – EI – NP	EE1ZO
254 mm x 30.5 m	10" x 100 ft	UCT76 – EI – NP	EE11Q
		<b>Packaging</b>	
254 x 254 mm	10 x 10"	100 sheets – notched	EE12S

\* For all other sizes, please contact your local Agfa representative.

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Subject to change without notice

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