

RAPITONE C1-C2 AERIAL PAPERS

PHOTOGRAPHIC CONTINUOUS TONE COLOUR PAPERS

Rapitone C1-C2 Aerial Papers are professional enlarging materials with a polyethylene resin-coated base. It is designed for the production of prints from colour aerial negatives. Camera, internegative and copy films can be used as negatives. Rapitone C1 has a glossy surface and C2 has a semi-matt surface.

The latest emulsion technology - optimised for professional use - and the perfectly engineered coating provide a colour paper with exceptionally high-grade photographic characteristics, and of outstanding uniformity and stability. It therefore satisfies all the quality requirements for professional applications.

■ Applications

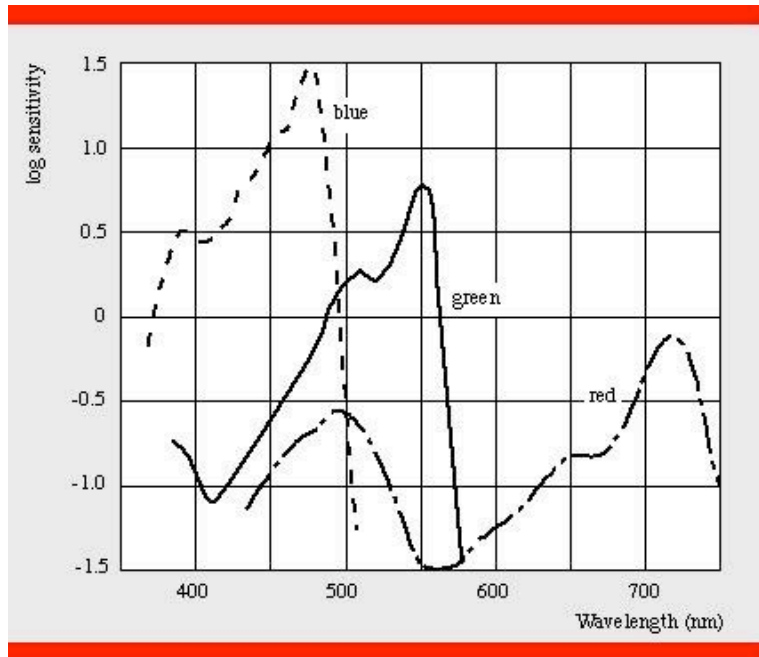
Rapitone C1 and C2 aerial papers are used in repro-departments of large photographic companies, for printing contacts and enlargements with optical analogue equipment.

■ General Properties

- Exceptional neutrality, pure whites and neutral blacks. Colours and grey tones are rendered correctly.
- Enhanced and cleaner red / magenta rendition with lower side densities.
- Excellent reciprocity characteristics. Filter values, speed and contrast remain virtually constant with the exposure times used in professional labs.
- High latent image stability.
- Maximum stability under standard processing conditions to ensure high productivity.
- Backed by maximum consistency of production to ISO 9002 standard.
- Produces prints with superior light and dark fading stability.

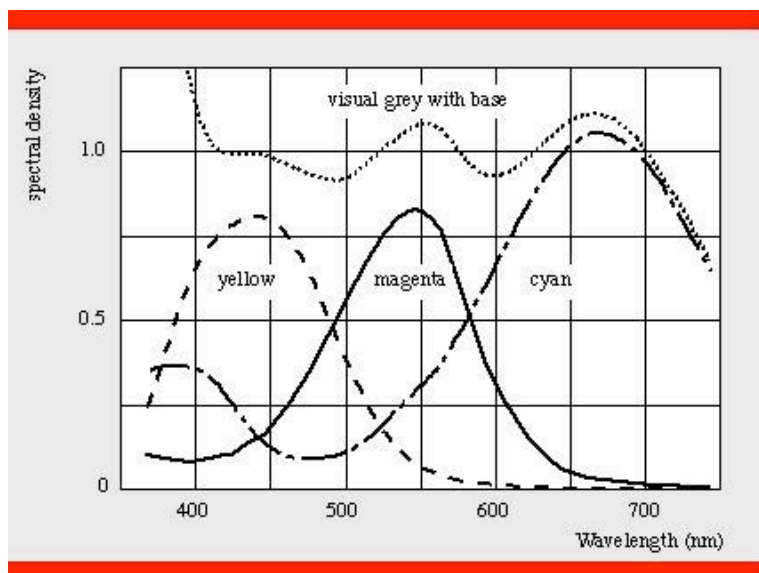
■ Photographic properties

Spectral sensitivity (related to equal-energy spectrum)



The curves shown refer to a density of 1.0 in reflection. The sensitivity is the reciprocal of the exposure (in mJ/m^2) necessary to produce the density given.

Spectral density



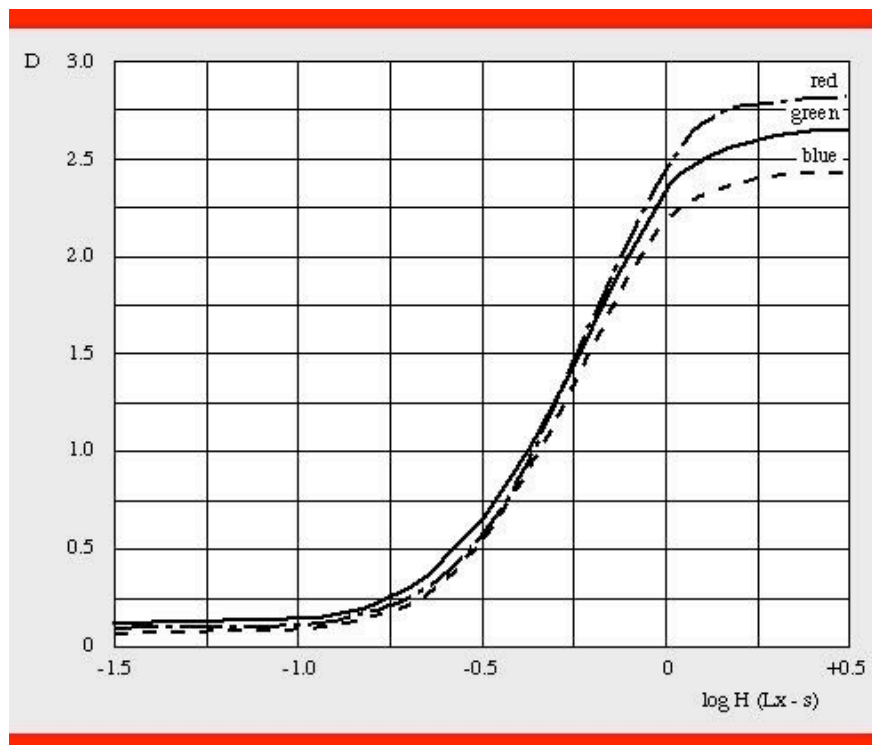
The diagram shows the spectral densities of the emulsion dyes at a visually neutral grey tone of a density of 1.0.

Colour density curves

Exposure: tungsten light, 5 s + neutral filtration

Process: ASP 94

Densitometry Status A



■ Production Guidelines

Darkroom lighting

Rapitone C1-C2 aerial colour papers must be handled in absolute darkness. A safelight with a "0 8" darkroom filter can be used for orientation (15 W lamp, minimum distance from workplace at least 1 m or 3 ft). Because of its speed the paper should only be exposed to the safelight with its emulsion facing down and for the shortest time possible, in order to prevent colour shift and loss of contrast.

Exposure

Rapitone C1-C2 aerial colour papers are exposed in simple contact or dodger printers or enlargers with colour CRT, halogen or tungsten source. The papers are balanced for a colour temperature of approximately 3000K.

Reciprocity characteristics

Rapitone C1-C2 aerial colour papers feature very good reciprocity characteristics with exposure times extending into the minutes range. This means that only slight adjustments of filtration and exposure are needed when the enlarging scale is changed. Darkroom productivity remains high.

Latent image

Latent image drift is a phenomenon that cannot be avoided in photographic techniques unless photo materials are immediately processed after exposure. Rapitone C1-C2 aerial colour paper features very good latent image characteristics and consequently good uniformity between test and final prints, also for long production runs of the very same image. This means that the image remains unchanged under normal climate and lab production conditions. Only if the time between exposure and processing is considerable (more than 12 hours), a slight colour shift may occur.

Processing

Rapitone C1-C2 aerial papers are processed in Agfa ASP 94 process. Instructions for use and process variants are described in technical data sheet ASP 94 Process Monitoring. Process ASP 94 is compatible with process RA-4.

Standard process ASP 94

Process solution	Time	Temperature	Replenisher	Replenishment rates
Developer	45 s	35 ± 0.3 °C (95 ± 0.5 °F)	ASP 94 CD-R ASP 94 CD-LR	210 ml/m ² 160 ml/m ²
Bleach-Fix	45 s	30 - 36 °C (86 - 97 °F)	94 BX-MR	495 ml/m ²
Wash	90 s	30 - 40 °C (86 - 104 °F)	-	2 - 11 l/ m ²
Drying	-	max. 80 °C (176 °F)	-	-

Drying

After processing, the paper is exposed to hot air in the processor drying section. The air supply, circulation and temperature should not over-dry the paper. In dryers with several compartments, temperatures sometimes increase from section to section (with the lowest temperature in the last section). Too high temperatures - especially in the last section may lead to unacceptable curling of the prints.

The maximum recommended drying temperature is 80°C/176°F.

It is also possible to dry prints manually at room temperature or with a hot air blower, after wiping the surfaces to prevent drying stains.

Evaluating the prints

The prints' density and colour can only be evaluated after drying. They should be viewed at a colour temperature of approx. 5000 K.

■ Cutting and packaging

Splices

For technical reasons some paper rolls have to be supplied with splices. The maximum number of splices in accordance with ISO1009 standards is:

- Length 76.2 m / 250 ft = 1 splice
- Length 30.5m = no splice

To compensate for the paper waste caused by splices, an extra allowance of 30 cm of paper is made per splice. Rapitone C1-C2 aerial colour paper rolls have a slot punched at the splice, which enables the operator to identify the splice location.

Packaging

The original packaging protects the paper against the effects of light and against short exposure to moisture or fumes.

Rolls are supplied in a 2 lid-box, which can be opened and closed repeatedly.

Sheets are wrapped or welded in a light-proof material, with a brown box as outside packaging.

Labels

A 14 digit product code is printed on the labels. It starts with the 5-digit product code, followed by the emulsion number and three characters for internal control purposes.

The complete line of coding should always be mentioned in case of claims.

■ Storage

Storage conditions

Rapitone C1-C2 aerial colour papers must always be stored in a cool and dry place. The best storage temperature is between + 2°C/36°F and +10°C/50°F. The relative humidity has no influence if the paper is stored in its original packaging. Once the packaging has been opened, the papers should be stored at a relative humidity of 40% to 60 %. It should be taken directly from the cold storage at least four hours before use, to prevent condensation onto the surface of the paper. Storage at deep freeze temperatures considerably delays the ageing process of the paper and extends the storage life.

Note that acclimatising from e.g. -20°C/-4°F to room temperature takes at least eight hours, depending on roll length, width and stacking.

Image preservation: dye stability

Image dyes of all photographic materials are subject to deterioration, mainly caused by light, heat, humidity and pollutants from the atmosphere or the environment.

The colour couplers used by Agfa place the Rapitone C1-C2 aerial colour papers amongst the leading papers in the world for stability against light, heat and humidity. It is nevertheless recommended to take certain precautions to ensure maximum durability of the dyes:

- Process photographic materials exactly as specified. Do not expose processed prints for too long to direct sunlight or very bright tungsten light.
- If possible, do not store prints above room temperature. The best relative humidity for extended storage is between 40% and 60%.
- Ensure that prints are adequately protected against harmful chemicals such as sulphur dioxides, nitric oxides, formaldehyde, softeners etc. during storage.

■ Structure

The paper base

The base consists of a paper core of approximately 165 g/ m² thickness, covered on both sides with polyethylene foil, so that the resulting total weight is around 220 g/m². The coating gives the base a smooth surface, which gives the processed paper a natural high gloss. For the semi-matt surface the matt finish and texture are produced by embossing the base.

The back of these papers has an anti-static layer that can be stamped, written or printed on.

Emulsion structure

The light-sensitive emulsions consist of silver chloride crystals embedded in gelatine. The red-sensitive layer contains the cyan component, the green-sensitive layer the magenta component, and the blue-sensitive layer the yellow component. These colour components couple with the colour developer's oxidation products to form the corresponding dyes. The topcoat and inter-layers consist of gelatine.

Silver coating approx. 0.92 g./m²

Total layer thickness without base approx. 10 µm

Assortment

Sheets

Type	Surface	Size	Sheets per box	Product code
Rapitone C1	Glossy	20.3 x 25.4 cm	100	EPAOE
Rapitone C2	Semi-matt	20.3 x 25.4 cm	100	EPAPG
Rapitone C1	Glossy	25.4 x 25.4 cm	100	EOTCO
Rapitone C2	Semi-matt	25.4 x 25.4 cm	100	EOTAK
Rapitone C1	Glossy	24 x 30.5 cm	50	EOTDQ
Rapitone C2	Semi-matt	24 x 30.5 cm	50	EOTES
Rapitone C1	Glossy	30.5 x 40.6 cm	50	EOTGW
Rapitone C2	Semi-matt	30.5 x 40.6 cm	50	EOTFU
Rapitone C2	Semi-matt	50.8 x 61 cm	50	EPYJV

Rolls

Type	Surface	Size	Core	Winding	Product code
Rapitone C1	Glossy	25.4 cm x 76.2 m	UCT76	EI	EOTJ1
Rapitone C2	Semi-matt	25.4 cm x 76.2 m	UCT76	EI	EOTHY
Rapitone C1	Glossy	50.8 cm x 30.5 m	UCT76	EI	EOTOC
Rapitone C2	Semi-matt	50.8 cm x 30.5 m	UCT76	EI	EOTK3
Rapitone C2	Semi-matt	76.2 cm x 30.5m	UCT76	EI	ERDAG
Rapitone C2	Semi-matt	106.7 cm x 30.5 m	UCT76	EI	EO5HB
Rapitone C2	Semi-matt	127 cm x 30.5 m	UCT76	EI	EOTPE

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

Subject to modifications without prior notice.

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