

PRODUCT INFORMATION BULLETIN

COLOR NEGATIVE PAPERS

FUJICOLOR CRYSTAL ARCHIVE ALBUM PAPER

1. FEATURES AND USES

FUJICOLOR CRYSTAL ARCHIVE ALBUM PAPER is a silver halide color paper designed to produce high-image-quality prints. The base of FUJICOLOR CRYSTAL ARCHIVE ALBUM PAPER is specially designed for the assembly and mounting of prints after processing, in double-sided photo album pages. Like FUJICOLOR CRYSTAL ARCHIVE PAPER, this new silver-halide paper incorporates advanced coupler and layer design technologies to deliver enhanced color reproduction, white purity, excellent image stability and easy handling.

Features

- **Optimal designed thickness properties** Resulting in easy-to-handle photo album pages after prints have been assembled and mounted.
- **Purer Whiteness** Clearer, more distinct highlight details.
- **Vibrant Color Reproduction** Retains beautiful colors such as subtle shades of green, vivid blues and reds.
- **Excellent Image Stability** Exhibits high image stability during extended long-term dark storage and light storage conditions, as well as excellent storability with respect to nitrogen oxide, ozone and other gases.

2. SAFELIGHT

Handle in total darkness. If safelight use is unavoidable, observe the following precautions.

- Expose paper no longer than 1 minute to light emitted through two Fuji Safelight Filters No. 103A (or Wratten Safelight Filters No. 13) in a 10-watt tungsten lamp safelight located at least 1 meter from the work area.
- Safelight filters fade with extended use and need regular checking. Replace when paper fogging is detected.
- Exposed paper is susceptible to safelight-induced sensitivity increases in the exposed area. For this reason, exposed paper should be subjected as little as possible to safelight illumination.

3. PRE-PROCESSING PAPER HANDLING/STORAGE

The higher the temperature and humidity, the more paper, whether unused, unexposed or exposed, is susceptible to adverse changes in speed, color balance, physical characteristics and other properties. Unprocessed paper is best stored at low temperatures. Specifically, the following conditions should be used for paper storage.

- Short-term storage: Store in a cool and dark location, away from direct sunlight, high temperature and high humidity
- Long-term storage: Below 10°C (50°F)

Raw paper which has been stored at a low temperature (by refrigeration) should be set aside and allowed to warm to room temperature prior to being opened. If the paper is taken out of its packaging immediately after being removed from refrigerated storage, condensation will form on the paper surfaces, resulting in print color changes and easily damaged surfaces.

The shortest periods required to return freezer- or refrigerator-stored paper to room temperature (minimum temperature equalization periods) are as follows.

20°C (68°F) Temperature Equalization Periods Unit: hours

Paper Size	Storage Temperature	-20°C (-4°F)	0°C (32°F)	10°C (50°F)
	20.3 cm x 250 m (8 in. x 820 ft.)		10	8

- NOTES**
- Do not heat paper in order to equalize temperatures.
 - Remove paper from refrigeration on day before use.

If exposed paper remains unprocessed for extended periods of time under normal room conditions or is subjected to high temperature and/or high humidity, changes in the color balance and other properties may occur.

The time between exposure and development should be fixed in order to obtain consistent quality. Avoid waiting until the next day to develop the exposed paper. Rather than holding the paper for processing the next day, initiate processing as soon as possible.

4. PROCESSING

This paper is designed for use with Fujicolor Paper processing chemicals as CP-RA, CP-RA4 type processes. This paper is not recommended to be used in Frontier as is likely to cause some trouble like jamming.

5. POST-PROCESSING PAPER (PRINT) HANDLING/STORAGE

Since prints are usually used for the long-term recording of images, as much effort as possible is made to use materials that exhibit the least amount of change overtime. But the effects of rough handling, light, heat, oxygen in the air, contaminating gases, humidity and mold cannot be completely avoided. It is advised to use gentle pressure during assembling the album. Also changes in the photographic image or base material are minimized by maintaining the appropriate storage conditions for prints, such as those used by museums and art galleries. Temperature and humidity control is the most important key to minimizing changes that occur in prints. Prints stored in the dark under the following conditions may be expected to show almost no change over time.

Storage period with almost no change	Temperature	Relative Humidity
More than 20 years	Below 10°C (50°F)	30% — 50%
10 — 20 years	Below 25°C (77°F)	30% — 50%

- Notes on Photo Album Storage

When prints have been assembled and mounted, it is recommended that the album be stored at a place as free as possible from hot and humid conditions, and away from direct sunlight and other strong light, or from direct illumination. The following are examples of undesirable storage conditions.

- Storage of the album at a temperature higher as 50°C and or 70% RH.
- Storage in a room closet facing a wall exposed to cold outside air (which may cause condensation).
- Storage in a place near the ceiling, such as an attic, the top of a closet or cupboard (where high temperatures may occur).

6. LIGHT SOURCES FOR VIEWING

When inspecting finished color prints, it is essential that an illumination source be used that has superior spectral characteristics, adequately high color temperature and sufficient brightness. This is because results can appear different, depending on light quality. For precise results, prints should be examined under the conditions designated by ISO 3664-2000. As a general guide, the following conditions are recommended.

Color Temperature	: 5000 ± 300 K
Average Illumination	: 500 Lux or more
General Color Rendering Index	: Ra 90 or more*

* To attain these values, special fluorescent lamps designed for color evaluation (e.g. EDL type) should be used.

When inspecting finished prints, be careful to shut out all external light and colored reflected light.

7. PAPER SURFACES AVAILABLE

FUJICOLOR CRYSTAL ARCHIVE ALBUM PAPER is only available in Lustre surface.

8. SIZES AVAILABLE

- Rolls

Width	Length	250 m (820 ft)	90 m (295 ft)
10.2 cm (4 in.)		●	
12.7 cm (5 in.)		●	
15.2 cm (6 in.)		●	
20.3 cm (8 in.)		●	
22.0 cm (8.66 in.)		●	
25.4 cm (10 in.)		●	
30.5 cm (12 in.)		●	
76.2 cm (30 in.)			●

NOTES Size availability may change without prior notice.

9. CONTROL STRIPS

Processing control can be provided through the use of FUJICOLOR PAPER CRYSTAL ARCHIVE Control Strips
- Process CP-40FA/43FA/47L/48S/49E.

10. MARKINGS (BOX/EMULSION NUMBERS)

10-1 Box Markings



10-2 Bag Labeling



10-3 Emulsion Numbers

Emulsion numbering will range between C01- C99.

11. BACKPRINTING

This product has no backprinting.

12. TECHNOLOGIES INCORPORATED IN THIS PAPER

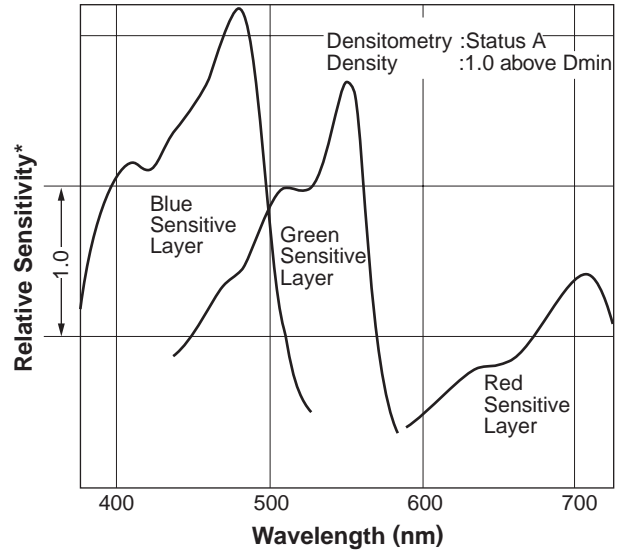
12-1 Base paper technology

Special designed base paper having unique characteristics is used for this product. Optimized paper thickness will result in improved leafing through of photo albums with double-sided pages.

12-2 X-Coupler Technology

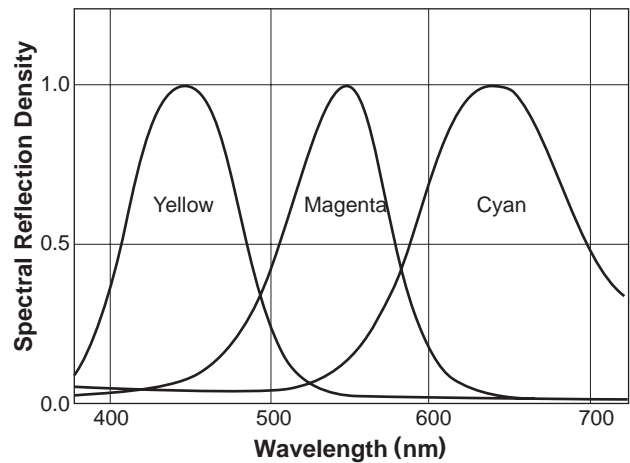
Through the incorporation of a latest designed cyan coupler (X-Coupler Technology), which features a molecular structure developed by Fujifilm's proprietary technologies, this paper is capable of reproducing the subtle shades of green and of forming colors of high purity, such as vibrant blues and reds.

13. SPECTRAL SENSITIVITY CURVES



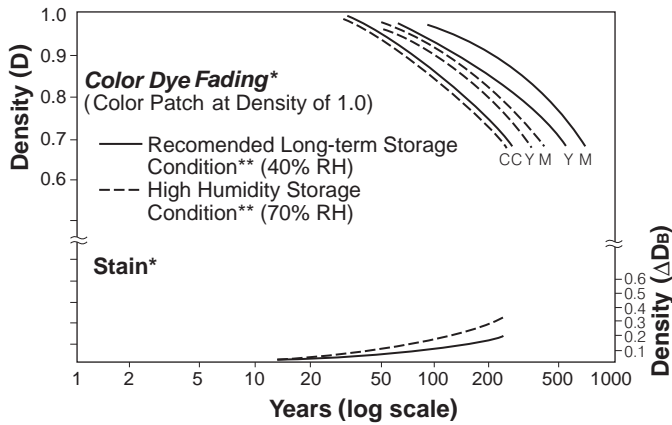
* Sensitivity equals the reciprocal of the exposure (J/cm²) required to produce a specified density.

14. SPECTRAL DYE DENSITY CURVES

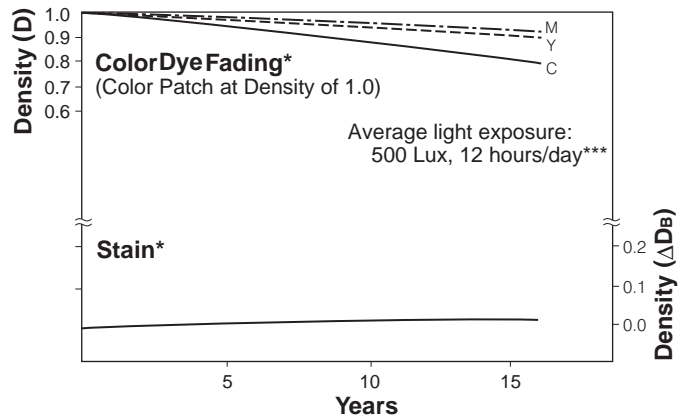


15. IMAGE STORAGE CHARACTERISTICS

Estimated Dark Storage Stability at 25°C (77°F)

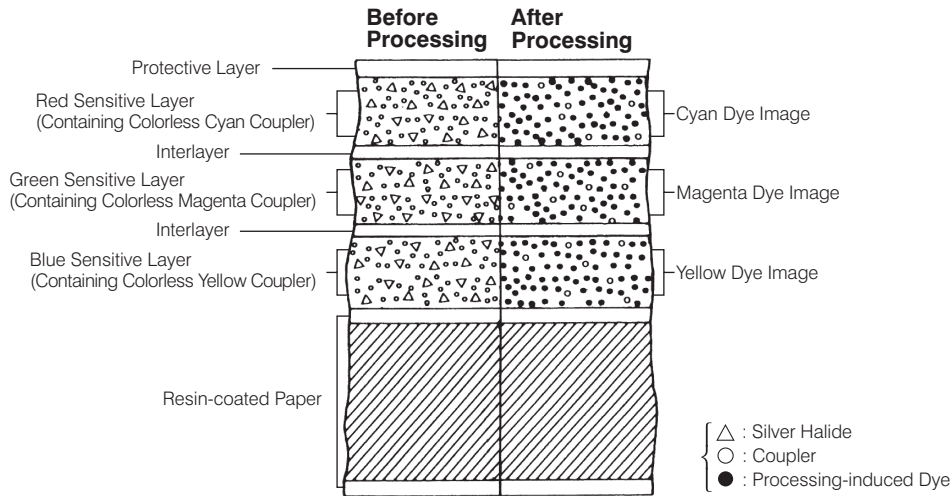


Estimated Light Storage Stability under 500 Lux Intermittent Illumination Conditions***



* Time-induced white background staining (yellowing) is as important as dye image fading in affecting image quality.
 ** In regard to color image dark storage stability, the level of humidity is just as important as temperature. For this reason, more accurate evaluations can be made by using the two humidity standards --- one for high humidity storage conditions (70%RH) and that recommended for long-term storage (40%RH).
 *** Since in common domestic situations sunlit areas may be bright as 1,000 lux or more during the day and drop to 300 lux in the evening and at night, storage conditions are usually designated to be at an average of 500 lux of light exposure for 12 hours per day.

16. PAPER STRUCTURE



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