

Product Information Bulletin

Fujicolor Crystal Archive Album Paper XS



1. Features and uses

FUJICOLOR CRYSTAL ARCHIVE ALBUM PAPER XS has a thin Glossy, Lustre or Matte base which enables the automatic creation of photo book blocks with a special lay flat binding technology and still keeping optimal handling of the pages when viewing the photo album.

FUJICOLOR CRYSTAL ARCHIVE ALBUM PAPER XS incorporates the silver halide emulsion technology which delivers enhanced color reproduction, white purity and excellent image stability, with a finish, with a specific protection layer resulting in good fingerprint protection and requiring no lamination for the inside album pages.

FUJICOLOR CRYSTAL ARCHIVE ALBUM PAPER XS allows the reproduction of a much higher color gamut than electrostatic prints. Digital cameras use the RGB gamut and Album XS paper is also printed in RBG gamut. As a result, no image quality loss occurs and an automated produced photo album can be viewed with a brilliance as never before.

Because of the thickness of this Album XS paper, up to 25% more pages can be defined in the produced photo books in comparison to Album paper and even 50% more compared to Fuji Crystal Archive paper.

Features

- Optimal designed thickness properties 25% more Photo book pages compared to standard Album papers
- 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 excellent image stability during long term dark and light storage conditions, as well as storability with respect to nitrogen oxide, ozone and other gases other gases
- No lamination required for inside Photo book pages Due to the special top layer which avoids stickiness in extreme environmental conditions.

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 Filter No. 103A (or Wratten Safelight Filter 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 be formed on the paper surfaces, resulting in print color changes and easily damaged surfaces.

The 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)
10.2cm x 186 m (4 in. x 610 ft.)	6	5	3.5

- NOTES**
- Do not heat paper in order to equalize temperatures.
 - Remove paper from refrigeration one 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

Combining this paper with Fuji chemicals results in many advantages including faster processing, greater processing stability, reduced contamination hazards, greater ease in solution preparation and higher print quality

5. Control strips

Processing control can be provided through the use of FUJICOLOR CRYSTAL ARCHIVE PAPER Control Strips Process CP-48S/49E

6. Post –processing print handling / storage

The prints should be handled with care to avoid damages on the print. 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 over time. The effects of

high force during folding, light, heat, oxygen in the air, contaminating gases, humidity and mold cannot be completely avoided. The change 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.

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 Prints Storage:

Even during normal storage, it is recommended that photobooks should be stored at a place as free as possible from hot and humid conditions, and away from direct illumination. The following are examples of undesirable storage conditions.

- 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).

7. Light sources for viewing

When inspecting finished color prints, it is essential that an illumination source will 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 3664-2009. 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.

8. Paper surface and thickness available

FUJICOLOR CRYSTAL ARCHIVE ALBUM PAPER XS is available with a Glossy, Lustre and Matte surface.

Thickness: 135 µm.

9. Sizes available

Length \ Width	Box	BULK packaging			
	150m (492 ft)	300m (984 ft)	650m (2132 ft)	725m (2378 ft)	
10.2 cm (4 in.)				■	
12.7 cm (5 in.)			■		
20.3 cm (8 in.)		■			
22.0 cm (8.6 in.)		■			
30.5 cm (12 in.)		■			
40.6 cm (16 in.)	■				

Note: Size availability may change without prior notice.

10. Markings (Box/Emulsion numbers)

10.1 Bag labelling

FUJIFILM
FUJICOLOR DIGITAL PAPER

Fujicolor Crystal Archive Album XS

30.5 cm x 300m P12 - 645
(12 in x 984 ft) LUSTRE

Barcode: E 1 0 0 1 5 0 3 0 1 0 0 1 1 2

10°C / 50°F

MADE IN THE NETHERLANDS by FUJIFILM Manufacturing Europe B.V. 5047 TK TILBURG

Open only in darkness under light conditions appropriate for this product. NOTICE: If this product is found faulty due to some defect in our manufacturing or packaging, it will be replaced with a new one. This is the full extent of our warranty.

Now in der Dunkelkammer in dem für dieses Produkt vorgeschriebenen Licht öffnen. HINWEIS: Sollte dieses Produkt wegen eines Produktions- oder Verpackungfehlers schadhaft sein, wird es kostenlos ersetzt. Weitergehende Ansprüche sind ausgeschlossen.

A recevoir qu'en chambre noire ou dans les conditions de lumière appropriées. REMARQUE: Si ce produit présente un défaut de fabrication ou d'emballage, il sera remplacé par un nouveau. Cette est la limite de notre garantie.

Abre solamente en la oscuridad con las condiciones apropiadas para este producto. IMPORTANTE: Si el producto presenta un defecto de fabricación o empaque, será reemplazado por uno nuevo. Esta es la máxima cobertura de nuestra garantía.

“+” indication means that a splice is present in the baby roll.

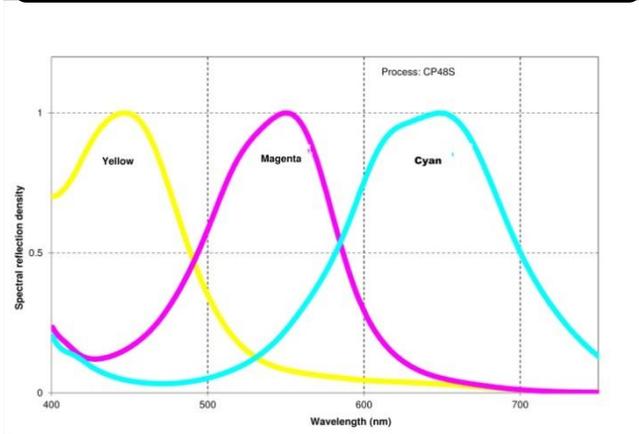
10.2 Emulsion numbers

Emulsion numbering will be in ascending order from Pxx-xxx at introduction.

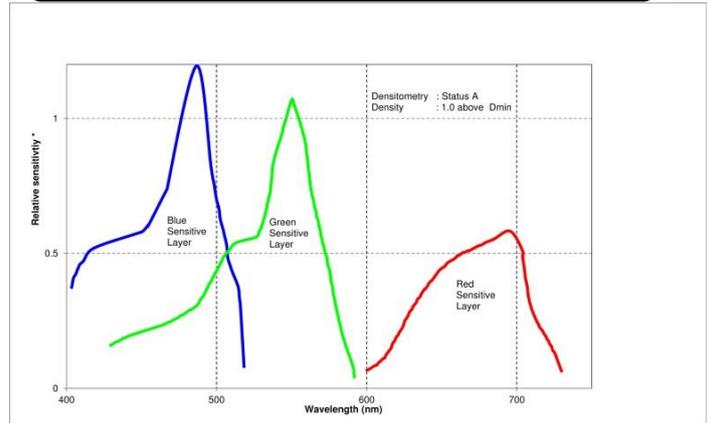
Note:

FUJICOLOR paper is marked with a three digit emulsion number followed by an additional three digit number which is provided for production control purpose only. Should any problem arise with FUJICOLOR CRYSTAL ARCHIVE ALBUM PAPER XS, the additional three digit number suffix to the emulsion number should be indicated on the claim.

11. Spectral dye density curves

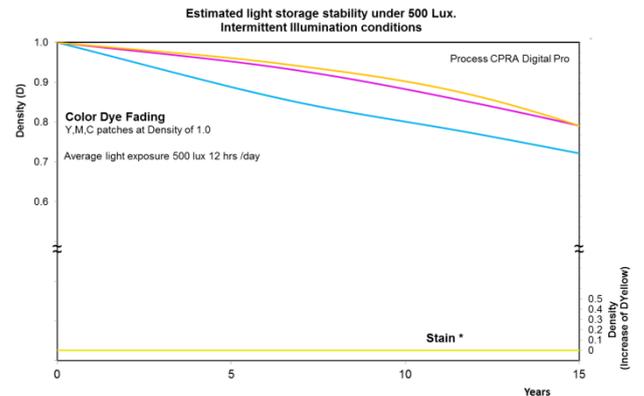


12. Spectral sensitivity curves



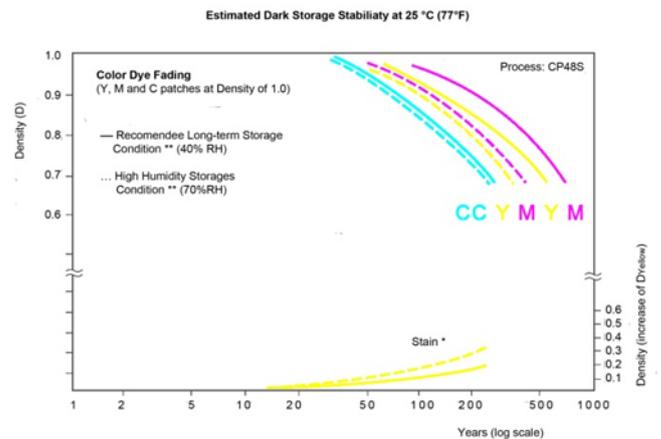
* Sensitivity equals the reciprocal of the exposure (J/cm²) required to produce a specified density

13. Image storage characteristics

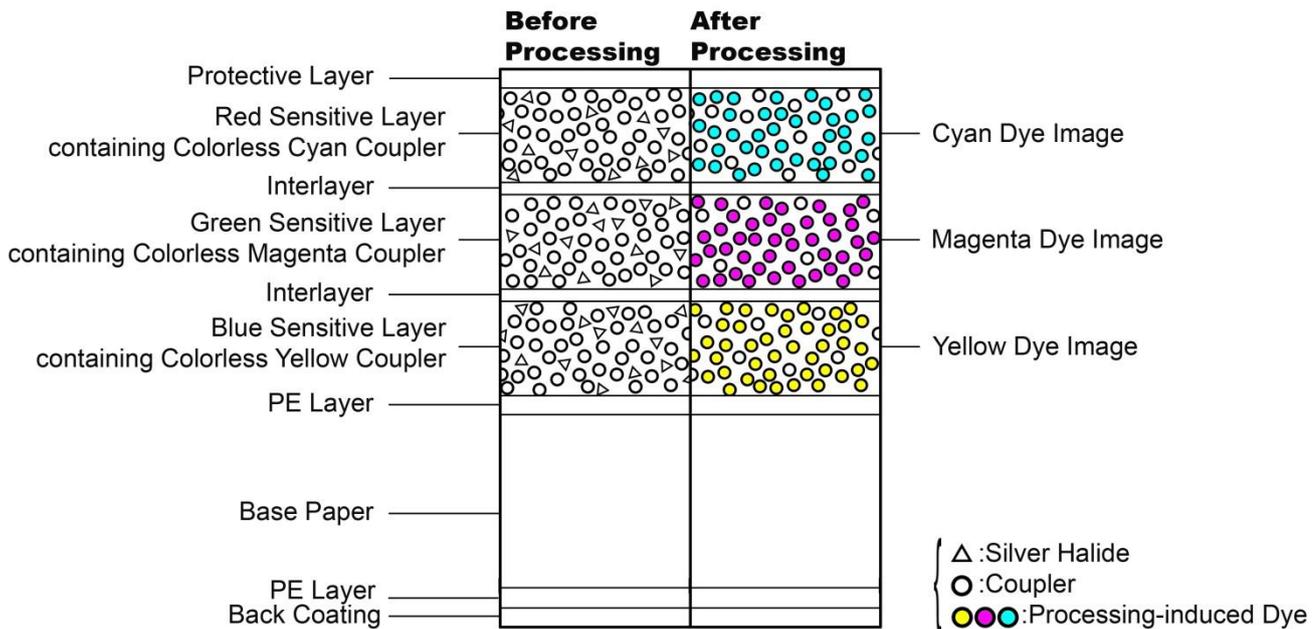


* Time-induced white background staining (yellowing) is as important as dye image fading in affecting image quality.

** 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).



14. Paper structure



15. Calibration data

Fuji Crystal Archive Album XS paper

Equipment		Calibration data	
Brand	Name	Glossy / Lustre / Matte	Thickness
ISAG	Wideprint 8", 12nG	2.10 / 2.10 / 2.05	0.14
ZBE (only 40.6cm (16 inch))	Chromira Pro, SE	2.10 / 2.10 / 2.05	n.a.

Album paper is thinner than all other photo papers. Under some environmental conditions (Temperature / Humidity) and depending on printer maintenance a proper transport cannot be guaranteed in the printing and processing part.

The recommended Dmax values can only be reached when using high active chemistry equal to Fujifilm CPRA Digital Pro AC

For competitive and recycling chemistry the Dmax should be reduced with -0.10 density

Chromira Pro, Chromira SE, ISAG VSP-25 and Leaderbelt processors (Labomator, Noritsu) must be modified to be able to process the Album XS paper

Chromira SE and Pro printers can only be used when version numbers are SE Lab # SE21213 and later or Pro Lab # PL21207 and later.

Contact technicalsupport@fujifilm.eu for detailed information.

16. Photobook production

Recommended equipment for photobook making is:

<p>ISAG Wideprint 8", 12nG</p> 	<p>In general: For a correct processing of the Album Paper XS the VSP-25 should have the following configuration:</p> <ul style="list-style-type: none"> • The dryer should have glass ball bearings • Dryer section should contain cylindered teflon rolls. • Dryer bottom rollers should have a textured surface. • Install new CD, BF, Water/Stabilizer chemical racks to improve the chemical injection system. • Advised dryer temperature to 50° - 55°C. • Remove the dryer backside squeezer. • Good condition of the chemical squeezers.
<p>ISAG VSP-25 Leader belt processor</p> 	
<p>ISAG fastBlock 03/04/05</p> 	

17. Technical Support

In case abnormalities are found when using this FUJICOLOR CRYSTAL ARCHIVE ALBUM PAPER XS please contact your local Fujifilm subsidiary and/or distributor.

Relevant Fujifilm subsidiary and/or distributor contact information can be found on the following internet address:
<http://www.fujifilm.com/worldwide/>

Notice: The data herein published were derived from materials taken from general production runs. However changes in specification may occur without notice

FUJIFILM

FUJIFILM Europe B.V.
PO box 600
5000 AP Tilburg
The Netherlands

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