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PHOTO PRINT
BY FUJIFILM

Product Information Bulletin
Album 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 colour 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 colour 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 Colour reproduction	Retains beautiful colours 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 gasesother gases
No lamination required for inside Photo book pages	Due to the special top layer which avoids stickiness in extreme environmetal 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.

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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 colour changes and easily damaged surfaces.

The minimum temperature equalization periods are as follows.
20°C (68°F) Temperature Equalization Periods
Unit: hours.

	Storage Temperature		
Paper Size	-20°C (-4°F)	0°C (32°F)	10°C (50°F)
127cm x 50m (50 in. x 164 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

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6. Post processing print handling - Storage

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 colour prints, it is essential that an illumination source must be used that has superior spectral characteristics, adequately high colour 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.

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

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

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

8. Paper surface and thickness available

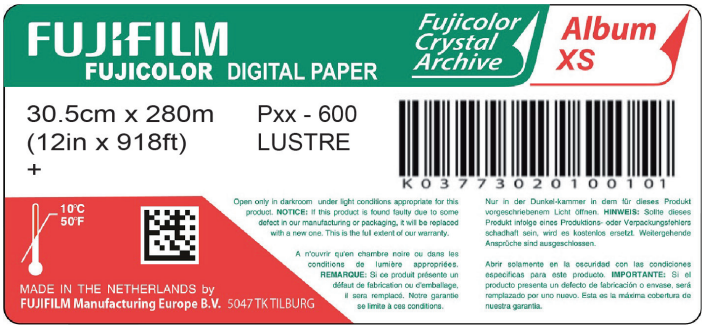
Fujicolor Crystal Archive Album Paper XS is available with a Glossy, Lustre and Matte surface.
Thickness: 135 µm.

9. Markings (Box / Emulsion numbers)

9.1 Box labelling

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

10.2 Bag labelling



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

9.3 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.

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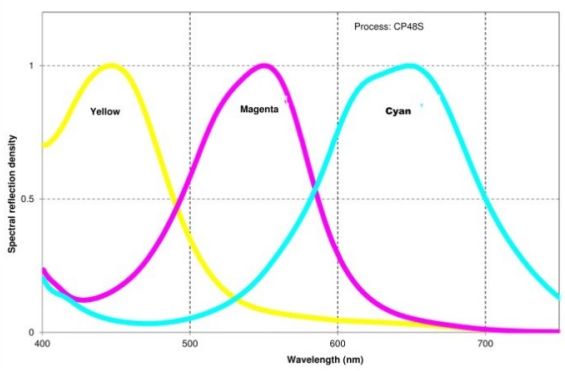
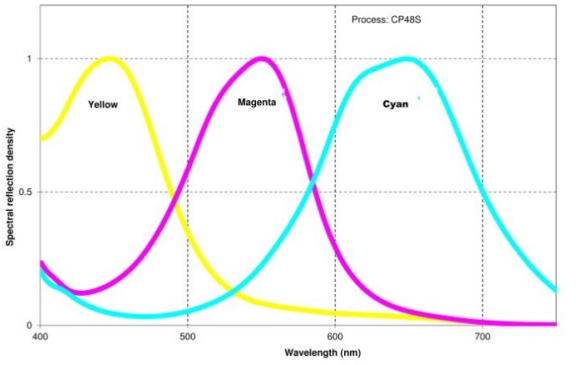
10. Spectral dye density curves

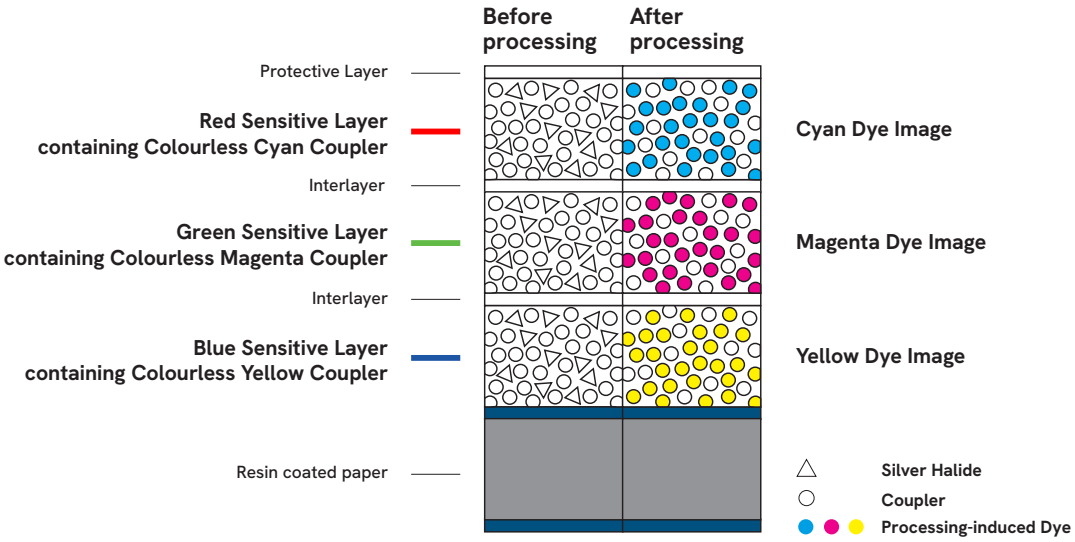


11. Spectral dye density curves



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

12. Paper structure



13. Sizes available

Width \ Length	Box packaging 150 M (492 ft)	Box packaging 280 M (918 ft)	Bulk packaging 300 M (984 ft)	Bulk packaging 650 M (2134 ft)	Bulk packaging 725 M (2378 ft)
10.2 cm (4 in.)					L
20.3 cm (8 in.)		G / L	G / L		
30.5 cm (12 in.)		G / L	G / L		

* Glossy / Lustre

Note: Size availability may change without prior notice. Availability depends on surface

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16. Calibration data

Album XS			
Equipment		**Calibration data**	
Brand	**Name**	Glossy / Lustre / Matte	**Thickness**
ISAG	WidePrint 8", 12nG	2.10 / 2.10 / 2.05	0.14
ZBE (only 40.6 cm (16 inch))	Chromira Pro, SE	2.10 / 2.10 / 2.05	n.a.
Album XS paper is thinner than all other photo papers. Under some environmental conditions (temperature / humidity) and depending on printer maintanance, a proper transport cannot be garanteed 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-50/25 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 technical support_fen@fujifilm.com for detailed information.			

15. Photobook production

Recommended equipment for photobook making is:

ISAG widePrint 8", 12nG

ISAG VSP-50/25
and Leader belt processor

ISAG fastBlock 03/04/05

In general:
For a correct processing of the Album Paper XS the VSP-25 should have the following configuration:

- The rollers in 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.

18. 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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