FUJIFILM
Value from Innovation

Product Information Bulletin

Fujicolor Crystal Archive
Professional Textured Paper

Canvas - Linen - Leather

1. Features and uses

FUJICOLOR CRYSTAL ARCHIVE PROFESSIOANAL TEXTURED PAPER is a family of innovative silver halide color papers specially designed to make impactful photographic prints.
The Textured papers have unique surface designs; Canvas available in Glossy and Matte, Linen Glossy and Leather Glossy.
The Textured papers incorporate the professional silver halide emulsion technology which delivers enhanced color reproduction, white purity, excellent image stability and good fingerprint protection.
The Textured paper is suitable for a wide range of unique premium products, such as wall decoration (framed or mounted), photo book (canvas glossy preferred) and greeting cards. Beautiful Canvas, Leather and Linen texture wall décor can be delivered without emulsion stripping and high pressure canvas mounting, saving time, labor and expense

Features

• Surface Textures	Canvas Glossy and Matte, Linen Glossy and Leather Glossy. Surface less fingerprint sensitive
• Optimal designed thickness properties	Resulting in smooth paper handling
• Vivid color reproduction / wide color range	Retains beautiful colors such as subtle shades of green, vivid blues and reds
• Brilliant white and deeper blacks	Clearer, more distinct highlight details and deep black
• Excellent image stability	Exhibits excellent image stability during long term dark storage and on display, as well as 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 a Fuji Safelight Filter No. 103 (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 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:

20C (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 83.3 m (8 in. x 246 ft.)	10	8	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. Printing and processing

This paper is designed for use with Fujicolor Paper Process chemicals such as CP-48S, CP49E or RA4 type processes.
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 quality.

The paper characteristics are optimized for printer systems as mentioned in section 18 Calibration data.

In general more calibration might be required to reach the calibration OK result, caused by the high scattering of light (rough surface) during calibration strip measurement.

A special tape splice method, using double sided tape and overlapping the belt and paper, is recommended on VSP type processors.

Dryer setting of processor might be increased by 5°C (or in some cases higher depending on the initial temperature level). This increase in dryer temperature is especially recommended on R2R processors.

5. Control strips

Processing control can be provided through the use of FUJICOLOR CRYSTAL ARCHIVE PAPER Control Strips Process CP48S/49E.

6. Post-processing

The recommended environmental conditions for post processing are: Temperature within 17 - 27°C and Relative Humidity within 40 – 75%.

Prints should be handled with care to avoid damages on the print.

7. Print and Photo Album Storage

Since prints are usually used for 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. It is advised to use low forces during assembling the album. Also the 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 the change that occurs 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
> 20 years	Below 10°C (50°F)	30% — 50%
10 — 20 years	Below 25°C (77°F)	30% — 50%

Notes on Prints Storage:

1. Prints should be mounted, or placed into a bag (plastic*) for photographic prints before being stored.
   * Made of polyester, polystyrene or polypropylene plastic, etc
2. Even during normal storage, it is recommended that prints be stored at a place as free as possible from hot and humid conditions, and away from direct illumination.

Notes on Photo Album storage:
When prints have been assembled and mounted, it is recommended to store the album at a place as free as possible from hot and extreme humid conditions, away from direct sunlight. The following are examples of undesirable storage conditions.

- Storage of the album at a temperature higher than 50°C and/or 70% RH.
- Storage close to an outside wall or exposed to cold outside air 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).

8. 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 3664-2009. 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.

9. Paper surfaces available

FUJICOLOR CRYSTAL ARCHIVE PROFESSIONAL TEXTURED PAPER is available in Canvas Glossy, Canvas Matte, Linen and Leather Glossy surface.

10. Paper thickness available

The Canvas Glossy Paper is available in:
Type H: 255 µm

The Canvas Matte Paper is available in:
Type H: 275 µm

The Linen Glossy Paper is available in:
Type H: 235 µm

The Leather Glossy Paper is available in:
Type H: 235 µm

11. Back printing

This product has no back printing.

12. Markings (Box/Emulsion numbers)

12.1 Box markings

"+" indication means that at least 1 spliced baby roll is packed.

12.2 Bag labelling

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

12.3 Emulsion numbers

Emulsion numbering will, at introduction, be in ascending order from:

Qyx-xxx : Canvas Glossy Type H
5xx-xxx : Canvas Matte Type H
Qyx-xxx : Linen and Leather Type H

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 PROFESSIONAL TEXTURED PAPER, the additional three digit number suffix to the emulsion number should be indicated on the claim.

13. Technologies incorporated in this paper

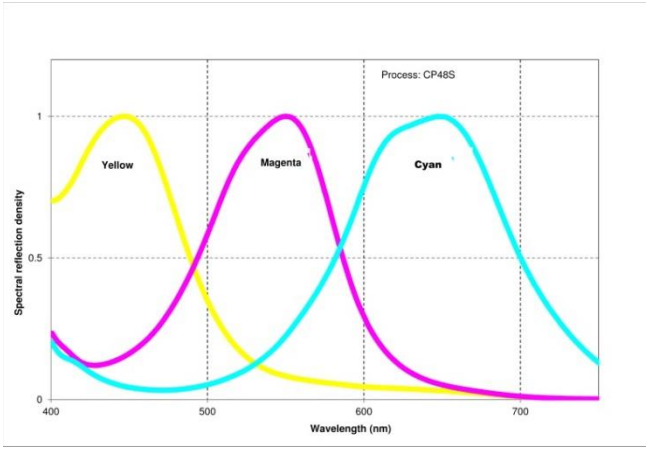
13.1 Base paper technology

Specially 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.

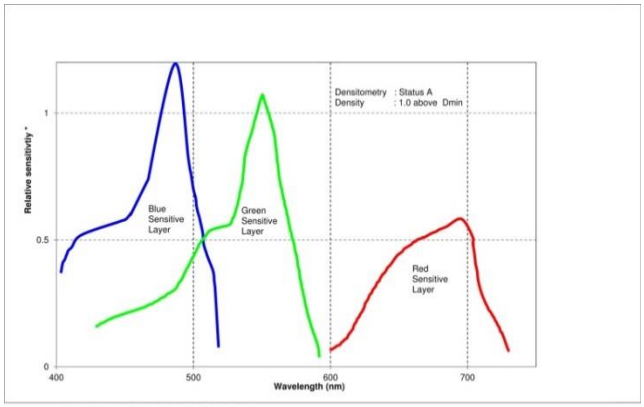
13.2 X-Coupler Technology

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 colors of high purity, such as vibrant blue and reproducing the subtle shades of green and of forming reds.

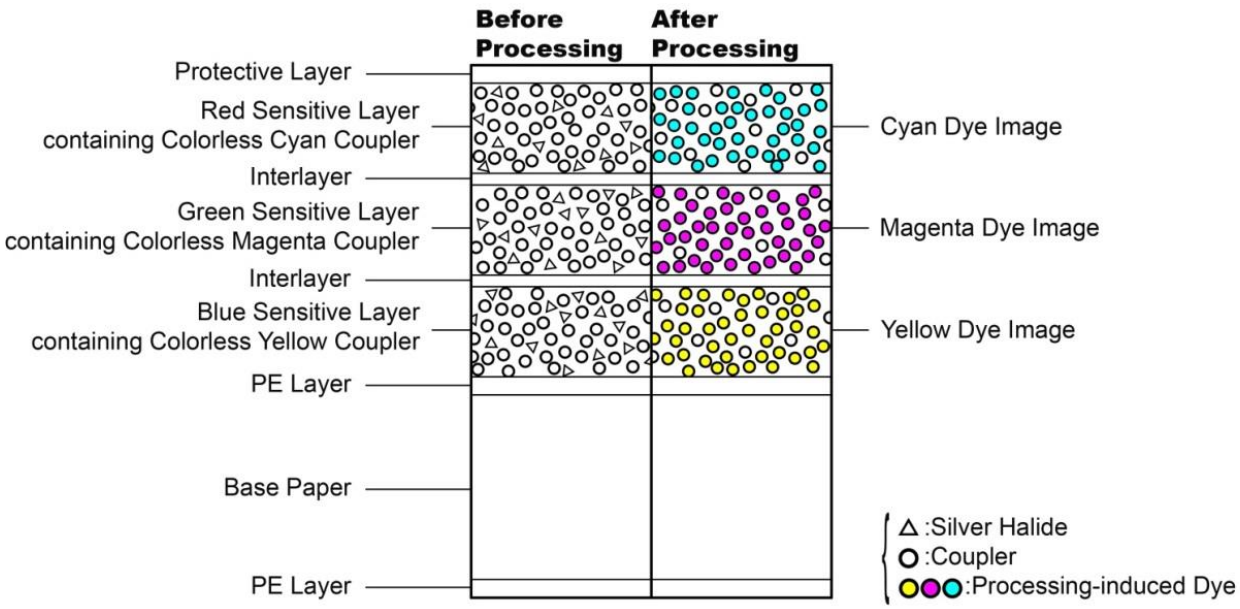
14. Spectral dye density curves



15. Spectral sensitivity curves



16. Paper structure



17. Sizes available

	Box packaging						
	Canvas			Linen		Leather	
	Glossy & Matte			Glossy		Glossy	
Length	50m	75m	150m	50m	83.8m	50m	83.8m
Width	164 ft	(246 ft)	(492 ft)	(164 ft)	(275 ft)	(164 ft)	(275 ft)
15.2 cm (6 in.)			■				
20.3 cm (8 in.)		■					■
25.4 cm (10 in.)		■			■		■
27.9 cm (11 in.)		■					
30.5 cm (12 in.)		■			■		■
50.8 cm (20 in.)		■			■		■
76.2 cm (30 in.)	■			■		■	
127.0 cm (50 in.)	■						

Note: Size availability may change without prior notice.

18. Calibration data

Fujicolor Crystal Archive Professional Textured Paper

Equipment		Latest Software	Calibration data				
			LUT + Target density RGB		Basic calibration ymcd	Intermittance rgb	Thickness
Brand	Name		Canvas, Linnen, Leather	Canvas Matte			
			Type H	Type H			
Frontier	3 series	Installer R	LUT B, surface Matte	LUT F, Other 1	n.a.	n.a.	n.a.
	5 series	Installer R		LUT J, Other 1			
	7 series	V 4.01	LUT B-2	LUT J-4, Other 1			
Noritsu	QSS 28x ~ LP24Pro	Vol.2 7.20	160	187	n.a.	n.a.	n.a.
	35xx, 37xx	Vol.3 N4.54					
Agfa	DLab 1, 2, 3		** 2.20 / 2.05 / 2.05	n.a.	0.97 / 1.00 / 1.02	n.a.	n.a.
KIS	DKS 15x, 16x, 17x		Printer defines own and highest possible Dmax settings (exposure vs chemistry relation)				
ISAG	Fastprint		2.25 / 2.25 / 2.15	1.45 / 1.45 / 1.40	n.a.	n.a.	See Table 2
	Wideprint 8", 12"						
	Wideprint R2R		160	187			n.a.
ZBE Chromira	SE, Pro Lab, R2R		2.10 / 2.10 / 2.00	*** 1.45 / 1.45 / 1.40	n.a.	n.a.	n.a
Polielettronica	Laserlab 50/76/127		Printer defines own and highest possible Dmax settings (exposure vs chemistry relation)				
**** Durst	Epsilon		2.25 / 2.25 / 2.15	1.45 / 1.45 / 1.40	0.004 /0.056 / 0.000 / 0.920	90 / 50 / 37	n.a
	Zeta						
	Theta 50/51				170.2 / 112.0 / 0.00 / 104.3		
	Theta 76/76HS				0.006 / 0.085 / 0.000 / 1.325	101 / 56 / 42	
	Lambda				124.0 / 95.8 / 0.00 / 129.0		
* OCE Lightjet	430 / 500XL / 5000		Media target can be downloaded from https://dgs.oce.com/PrinterSupport/LJ_Customer_Access/LJ430_Cust_index.htm				

All recommended Dmax values can only be reached when using high active chemistry equal to Fujifilm CPRA Digital Pro AC and Fujifilm ADM chemistry
For competitive and recycling chemistry the Dmax should be reduced with -0.10 density

* To be able to calibrate the Canvas Matte, Type H product a special procedure is necessary. Please contact technicalsupport@fujifilm.eu for more details

** The Agfa DLab has a non status A densitometer. The actual measured densities are different from status A. This mis-measurement has been corrected in the adviced Dmax settings.

*** When using the old generation Chromira Pro Lab processor procesing streaks occur at the end of the print (cross-over rack streaks)

**** Due to the canvas paper surface the LED balance will be calibrated between 20 - 30% (normally < 10% is acceptable)

When the cut mark will not be detected the initial value for the cut mark ref. reflective media must be adjusted. This initial value should be changed according to the following software s
In the main Durst Theta software go to: Special - Init Values and Special Theta Control - Cut mark ref. reflective media. Change this setting to a value between 3500 and 3900.

Note: Depending on equipment settings (dryer temperature adjustment) it is possible to use this paper on minilab systems.

Table 2	Thickenss (ISAG Wideprint settings	
Canvas	Glossy Type H	0.25
	Matte Type H	0.27
Linen	Glossy Type H	0.23
Leather	Glossy Type H	0.23

19. Technical Support

In case abnormalities are found when using this FUJICOLOR CRYSTAL ARCHIVE PROFESSIONAL TEXTURED PAPER 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 NORTH AMERICA CORPORATION
200 Summit Drive
Valhalla, NY 10595

November 2018
Document nr: AF3-0247U3