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PHOTO PRINT
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Product Information Bulletin

Supreme

1. Features and uses

Fujicolor Crystal Archive Paper Supreme is a silver halide colour paper designed to produce high image quality colour prints on both analog and digital printers.
Fujicolor Crystal Archive Paper Supreme incorporates new silver halide emulsion technology, coupler technology and layer design technology to deliver enhanced colour reproduction, white purity, image stability and handling. Furthermore, when used in conjunction with the Frontier 5**/7** series it enables the realization of superfast processing, resulting in a drastic improvement of productivity.

Features

More vivid colour reproduction	Retains beautiful colours such as subtle shades of green, vivid blues and reds
More brilliant white plus improved highlight details	Further improved whiteness, with clearer, more distinct highlight details.
Excellent image stability	Exhibits high image stability during long term dark storage and excellent light storage condition, as well as storability with respect to nitrogen oxide, ozone and other gases.
Improved handling characteristic	Improved tolerances for processing unevenness and pressure induced density.
High productivity	Realizes high productivity when used in conjunction with Frontier 5**/7** series

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

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3. Pre-processing paper handling - Storage

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

This paper is designed for use with Fujicolor Paper Process, CP48S and CP49E or RA-4 type processes. Combining this paper with Fujifilm 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-40FA/43FA/47L/48S and 49E.

6. Post processing 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 over time. But the effects of high force during folding, light, heat, oxygen in the air, contaminating gases, humidity and mold cannot be completely avoided.
Also 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. 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
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:

1. Prints should be inserted into albums, 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.

   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).

6. Post processing print handling - Storage

- Storage in a place near the ceiling, such a an attic, the top of a closet or cupboard (where high temperatures may occur).

3. Storing prints with their front surfaces facing each other may result in unexpected problems. If the adjacent print placement is unavoidable, it is necesary to keep the surface separated by, for example, the use of interleaving sheets of paper

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.

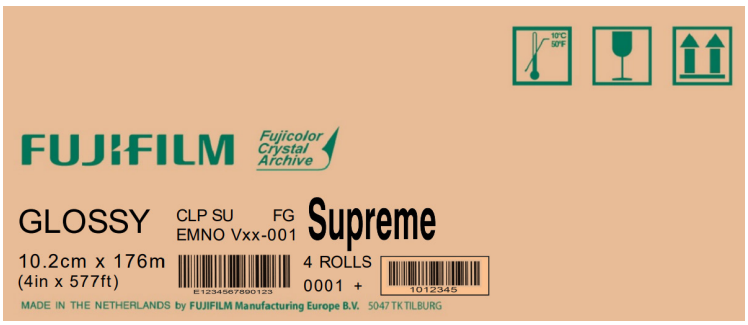
8. Paper surface available

Fujicolor Crystal Archive Paper Supreme is available in Glossy or Lustre surface.

9. Back printing

10. Markings (Box / Emulsion numbers)

10.1 Box markings



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

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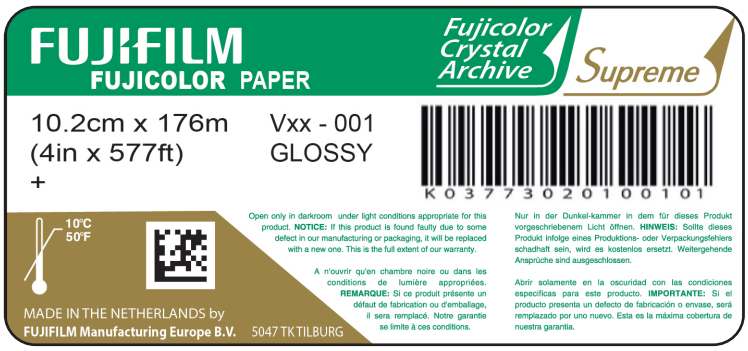
10. Markings (Box / Emulsion numbers)

10.2 Bag labelling



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

10.3 Emulsion numbers

Emulsion numbering will be in ascending order from 2yx-xxx (with back print) and 3yx-xxx (without back print) at introduction.

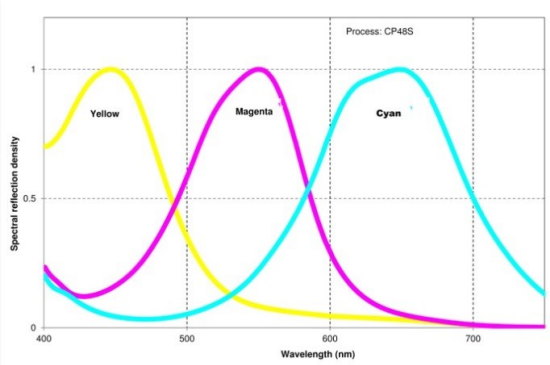
Note:

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 Paper Supreme, the additional three digit number suffix to the emulsion number should be indicated on the claim.

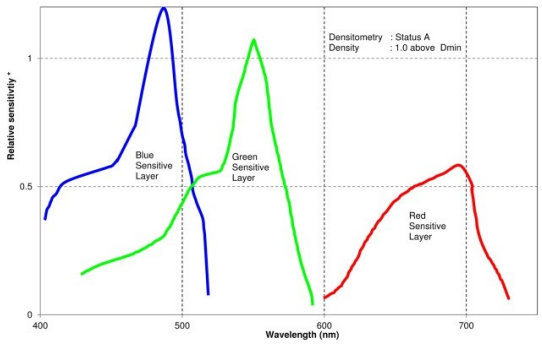
11. Use with FA / FA compact

Since cyan forming dye has been modified in Fujicolor Crystal Archive Paper, a problem may arise when this paper is used on the printing condition settings made using the densitometer QT-600 built into Fuji Minilab FA/FA compact series. When Fujicolor Crystal Archive Paper is used with Fuji Minilab FA/FA compact series of minilabs, it is necessary to set the printing conditions using the "ring around print" method or another densitometer.

12. Spectral dye density curves

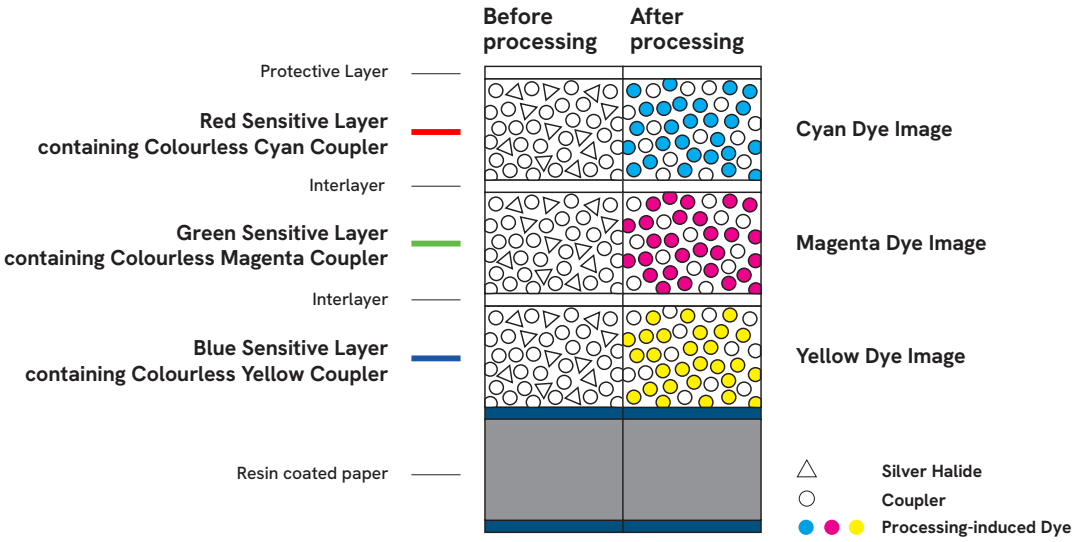


13. Spectral sensitivity curves



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

14. Paper structure



15. Sizes available

	Box packaging			Bulk packaging		
Length	88 M	112 M	176 M	176 M	420 M	450 M
Width	(288 ft)	(367 ft)	(577 ft)	(577 ft)	(1378 ft)	(1476 ft)
8.9 cm (3.5 in.)						G / L
10.2 cm (4 in.)			G / L			G / L
11.4 cm (4.5 in.)			G		G / L	
12.0 cm (4.7 in.)			G / L		G / L	
12.7 cm (5 in.)			G / L		G / L	
15.2 cm (6 in.)			G / L	G		
17.8 cm (7 in.)			G / L			
20.3 cm (8 in.)		G / L	G / L	G / L		
25.4 cm (10 in.)		G / L	G			
30.5 cm (12 in.)		G / L	G / L	G / L		
40.6 cm (16 in.)	G / L					
50.8 cm (20 in.)	G / L					

* Glossy / Lustre

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

16. Calibration data

Supreme						
Equipment		latest software	Calibration data			
			LUT + Target density RGB	basic calibration cmyd	intermittance rgb	Thickness
Brand	Name		Glossy / Lustre			
Frontier	3 series	Installer R	LUT C + surface selection	n.a.	n.a.	n.a.
	5 series	Installer R	LUT C + surface selection			
	7 series	V 4.01	LUT C-1			
Noritsu	QSS 28xx - LP24Pro	Vol 2 7 20	163	n.a.	n.a.	n.a.
	QSS 35, 37, 38, 39 series	Vol 3 N4.54	163			
Agfa	DLab 1, 2, 3		1.90 / 1.90 / 1.85	1.00 / 0.98 / 0.97		
KIS	DKS 15x, 16x, 17x		Printer defines own and highest possible Dmax settings (exposure vs chemistry relation)			
ISAG	Fastprint		1.90 / 1.90 / 1.85	n.a.	n.a.	0.22
	Wideprint 8", 12nG					
	Wideprint 12"		163	n.a.	n.a.	n.a.
ZBE Chromira	SE, Pro, R2R		1.90 / 1.90 / 1.85	n.a.	n.a.	n.a.
Polielettronica	Laserlab 50 / 76		Printer defines own and highest possible Dmax settings (exposure vs chemistry relation)			
Durst	Epsilon		1.90 / 1.90 / 1.85	0.004/0.056/0.000/0.920	90 / 50 / 37	n.a.
	Zeta					
	Theta 50 / 51			170.2 / 112.0 / 0.0 / 104.3		
	Theta 76 / 76HS			0.006/0.085/0.000/1.325	101 / 56 / 42	

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
Media target and ICC profile location: https://www.fujifilm.eu/eu/support/photofinishing/color-management

17. Use with Frontier

Please refer to the following calibration data as a general guide when using Fujicolor Crystal Archive Paper Supreme on a digital printer.

All Frontiers requires a dedicated LUT when printing. It is necessary to adjust for the paper type for each paper magazine by changing the paper "Type" specification in the "Paper Magazine Registration" menu.

Registration and Setup of the Paper Type specification on Paper Magazine for Frontier 330/350/370/390 series.

1. Log in to the <4 Setup and Maintenance> menu with <SE2> for the user name and password of <7777>.
2. Select <5 Printer Adjustment / Maintenance>, <1 Paper Magazine Registration> (Menu 451) and change the type to "C" as shown in the table below.

Paper	Type
Crystal Archive Paper Supreme	C

3. Select < 2 Print Condition Setup and Check >, < 1 Paper condition Setup > (menu 421) and perform a paper condition setup for all magazines for which the paper type is changed.

When using AD100:
Do not click the "initialize" button.Start calibrating the paper using the Print button.

When using AD200:
It is recommended to click the "initialize" button to initialize the settings before making the paper

17. Use with Frontier

condition setup. After initialization the first paper condition setups will deviate by a great degree, but this will be balanced after the second or third attempt. (Please note that clicking the "initialize" button wil not be possible if you do not log in with a user name of lab administrator or higher).

Registration and Setup of the Paper Type specification on Paper Magazine for Frontier 340/355/375/550/570/590 series

1. Log in to the <4 Setup and Maintenance> menu with <SE2> for the user name and password of <7777>.

2. Select the <Adjustment/Maintenance>, <02 Print Condition Setup and Check>, <0221 Paper Magazine Registration>. Change the paper type to "C" as shown in the table below.

Paper	Type
Crystal Archive Paper Supreme	C

3. Click the < Setup and Maintenance >,<02 Print condition Setup and Check > ,< 0200 Paper Condition Setup > and perform a paper condition setup for all magazines for which the paper type is changed.

It is important to click the "initialize" button to initialize the settings before making the paper condition setup. After initialization the first paper condition setups will deviate by a great degree, but this will be balanced after the second or third attempt.

Registration and Setup of the Paper Type specification on Paper Magazine for Frontier 7000/9000 series.

1. On the Maintenance Application display, click the [maintenance] to access the Maintenance display. Click [Extension] – [Setup] – [Laser Setup] – [Paper Specification Registration/Setup].

2. Select the paper type "C-1" as shown in table below:

Paper	Type	Surface
Crystal Archive Paper Supreme	C-1	G / L

Follow the instructions on the Paper Specification registration/set up. Make the test prints and register the measurement results.

18. Technical Support

In case abnormalities are found when using this Fujicolor Crystal Archive Paper Supreme 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.

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