

Product Information Bulletin

Velvet



1. Features and uses

Fujicolor Crystal Archive Professional Velvet Paper is a new silver halide color paper specially designed to produce fine art prints. This paper has a unique smooth deep matte surface design. That includes a fingerprint protection layer which makes the handling of the produced fine art images much easier. The diffuse reflecting surface characteristic of Velvet paper makes it suitable to display fine art photos even under direct lighting, due to the non-reflective surface. Reason is that the light reflection will be minimized by the Velvet surface.

Fujicolor Crystal Archive Professional Velvet Paper can also be used for photo book application. The emulsion technology is similar to the Fujicolor Crystal Archive DPII paper. Therefore Velvet fine art images will reproduce enhanced color reproduction, white purity and excellent image stability.

Fujicolor Crystal Archive Professional Velvet Paper can be used on all Frontier series and large format printing systems.

Features

Pure Whiteness	Clearer, more distinct print images and sharper text quality
Finger print protection	Surface has strong resistance against fingerprints before and after processing
Unique deep matte surface	Creates a unique deep matte surface for an impressive display of images with very little surface reflection
Excellent Image Stability	Highest level of image stability
Accurate Color Reproduction	Expanded color reproduction range ideally suited to commercial, wedding and portrait photography productivity

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

**3. Pre-processing
paper handling -
Storage**

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 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)
127cm x 50m (50 in. x 164 ft.)	12	10	7

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, CP48S and CP49E or RA-4 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 print quality.

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 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 overtime. But the effects of high force during folding, light, heat, oxygen in the air, contaminating gases, humidity and mold cannot be completely avoided.

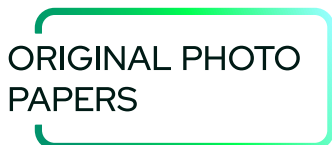
The change in the photographic image or base material are minimized by maintaining the appropriate storage conditions for prints, such as those used by museums and art galleries. Temperature and humidity control is the most important key to minimizing the change that occurs in prints. Prints stored in 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



6. Post processing

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).
- Storage in a place near the ceiling, such as 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 necessary 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 and thickness available

Fujicolor Crystal Archive Professional Velvet Paper is only available with the unique deep matte surface.

Currently thickness versions available:

Type H (heavy) ; 240µm.

Type S (slim) ; 170µm.

9. Backprinting

There is no back printing on Fujicolor Crystal Archive Professional Velvet Paper

10. Markings (Box / Emulsion numbers)

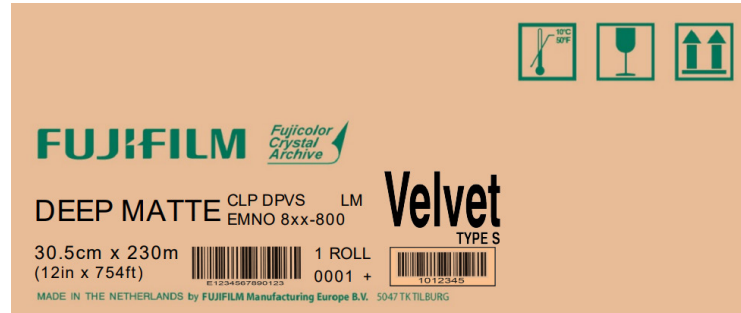
10.1a Box markings Velvet Type H



"+" indication means that at least 1 spliced babyroll is packed

10. Markings (Box / Emulsion numbers)

10.1b Box markings Velvet Type S



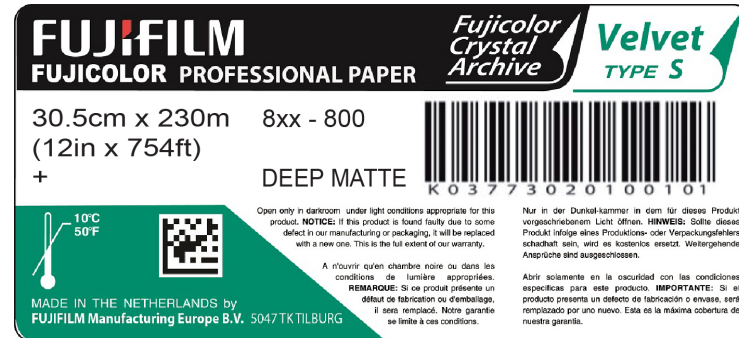
"+" indication means that at least 1 spliced babyroll is packed

10.2a Bag labelling Velvet Type H



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

10.2b Bag labelling Velvet Type S



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

10.3 Emulsion numbers Velvet Type H / Type S

Velvet Type H

Emulsion numbering will be in ascending order from 7xx-xxx at introduction.

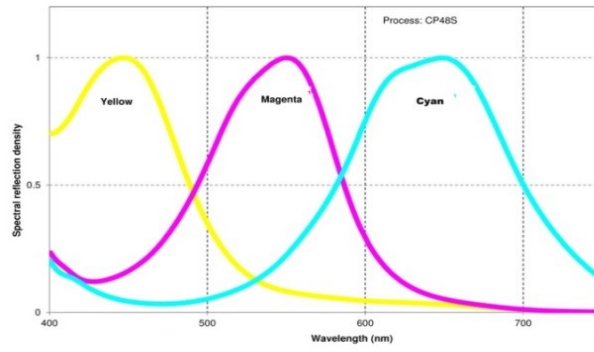
Velvet Type S:

Emulsion numbering will be in ascending order from 8xx-xxx at introduction.

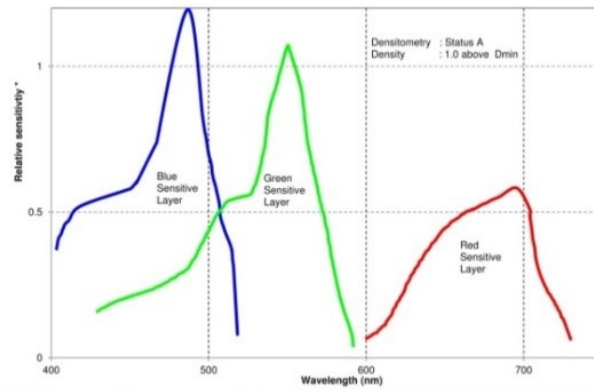
Note:

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

11. Spectral dye density curves

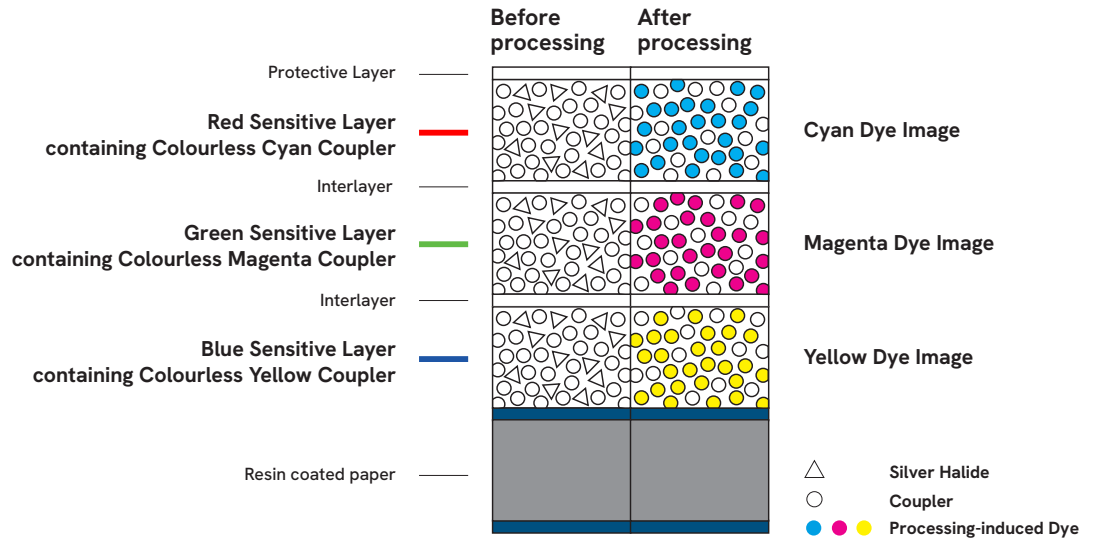


12. Spectral sensitivity curves



*Sensitivity equals the reciprocal of the exposure (J/cm^2) requires to produce a specified density

13. Paper structure



14. Sizes available

	Velvet Type H			Velvet Type S	
	Box packaging			Box	Bulk
Length	50 M (164 ft)	83,8 M (274 ft)	167.7 M (549 ft)	230 M (755 ft)	250 M (820 ft)
Width					
10.2 cm (4 in.)			X		
12.7 cm (5 in.)			X		
15.2 cm (6 in.)			X		
20.3 cm (8 in.)		X		X	
22.0 cm (8.6 in.)					X
25.4 cm (10 in.)		X			
27.9 cm (11 in.)		X			
30.5 cm (12 in.)		X		X	X
50.8 cm (20 in.)		X			
76.2 cm (30 in.) IN	X				
76.2 cm (30 in.)	X				
127.0 cm (50 in.) IN	X				

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

16. Calibration data

Velvet				
Equipment		Calibration data		
		Target density RGB	Basic calibration cmyd	Intermittance rgb
Brand	Name	Glossy / Matte		
ZBE Chromira	SE, Pro, R2R	2.55/2.55/2.45	n.a.	n.a.
Polieletronica	Laserlab 50 / 76 / 127	Printer defines own and highest possible Dmax settings		
Durst	Epsilon	2.35/2.35/2.25	0.004/0.056/0.000/0.920	90 / 50 / 37
	Theta 50 / 51		170.2/112.0/0.00/104.3	
	Theta 76 / 76HS		0.006/0.085/0.000/1.325	
	Lambda		124.0 / 95.8 / 0.00 / 129.0	101 / 56 / 42
OCE Lightjet	430 / 500XL / 5000	Media target can be downloaded from the Fujifilm Europe.eu website		

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>

For a correct monotone (BW and Sepia) print quality the advice is to calibrate each emulsion-roll number.

17. Technical Support

In case abnormalities are found when using this Fujicolor Crystal Archive Digital Paper Type DPII, 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.