Encres DUBUIT
INNOVATIVE INKS

EvoJet 1700 UV

EvoJet 1700 UV ink series is a reliable solution for use with print heads with 7pl definition and higher such as Ricoh Gen 4, 5 & 6, Konica Minolta > 7pl, and others.

EvoJet 1700 UV inks have a superior adhesion for acrylic, an expanded colour Gamut, an extra fine resolution and a fast curing.

SUBSTRATES & APPLICATIONS

Especially formulated to print on Acrylic without pre- or post-treatment.
Compatible with both flexible and rigid media such as PVC, vinyl, banner, mesh, paper, canvas, styrene (no edge clipping), polycarbonate, Dibond...

Evojet 1700 can also be printed on treated glass using either Evoprime H5099 (cloth applicable) or Evoprime XP45340 (inkjet printable).

Once the glass is printed, perform a post-cure at 150 °C for 30 minutes.

ADVANTAGES OF INK

EvoJet 1700 UV offers an expanded substrate compatibility trough an improved and superior adhesion.
EvoJet 1700 UV series offers an expanded color gamut. Pigment particle size is sub-micron defined for extra fine resolution and controlled dot gain avoiding a maximum of satellite over spray.

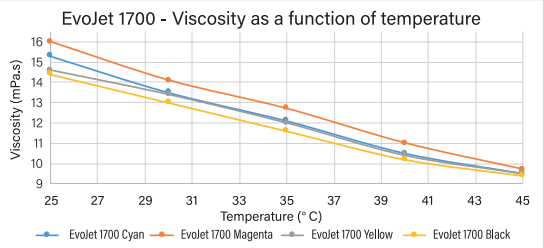
Surface tension
(± 0,5 mN/m) at a temperature of 25 °C (Krüss K11 tensiometer)

26 mN/m	for all colors
24.5 mN/m	for white

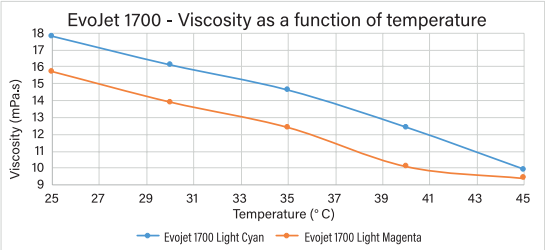
Viscosity
Measures done at 45 °C/shear rate between 100 and 1000s-1
Rheometer Anton Paar MCR 102

Cyan	9 - 10mPa.s
Magenta	9 - 10mPa.s
Yellow	9 - 10mPa.s
Black	9 - 10mPa.s
Light Cyan,	9.5 - 10.5mPa.s
Light Magenta	9.5 - 10.5mPa.s
Evowhite 1700	7.5 - 8.5mPa.s

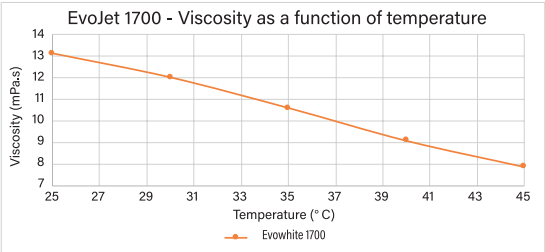
Colors



LIGHT Colors



White



Particles sizes
For all colors, Di50<400nm and Di90<1000nm (Cordouan Vasco DL 135 particle sizes analyser)

Density at 25 °C (Krüss K11 tensiometer)
Magenta, Black, Light Cyan, Light Magenta: 1,06 g/cm³
White: 1,18 g/cm³

OUTDOOR DURABILITY

Color variance should be of minimum impact for a 2 years period for a proper use of EvoJet 1700 UV inks.
EvoJet 1700 UV is formulated to adhere on substrates with surface tensions higher than or equal to 42 mN/m, but it is highly recommended that all substrates are tested before use.

PRINT PARAMETERS

- Temperature: 18 to 25 °C
- Optimum humidity: 40 to 60% (without condensation)
- Operating humidity: 30 to 70% (without condensation)

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CONVERSION
For optimal performances, it is recommended to thoroughly clean the ink system and jet assemblies with EvoClean flushing solvent. It is highly recommended to replace all filters. For further detailed info on how to proceed converting a printer with EvoJet 1700 UV series, please consult our appropriate documentation.

CURING
Maximum adhesion, chemical and scratch resistance will not be reached before 48 hours after initial curing.
EvoJet 1700 UV inks are formulated for optimum curing conditions at 300 to 400 mj/cm² UV dose with mercury lamps and 395 nm, >7,5W/cm² for LED curing.

HEAD TENSIONS
Tension too high:
Volume of droplets too big, needs more ink to flow through the subtank and high risks of ink shortness in the subtank; results in ink gradually fading out (ink starvation) during printing. Very difficult to align printing heads especially when not all heads are over charged with the same % voltage. Ink droplets are fired with a deviation.
Over tension of the head will cause air bubbles in the print head causing firing problems at start up and beginning of every printing file. Need to respect the voltages indicated on the printing heads. Strongly recommended to 'match' the printing heads in function of tension on one and the same printer.

TEMPERATURE
The temperature of the subtank and the print heads needs to be ideally the same.

VACUUM
If tension of the printing head is too high, it needs to be compensated with up scaling the negative pressure. Very difficult to set negative pressure especially when not all heads are over charged with the same voltage.

PROFILE
To have a good printed dot resolution and optimum adhesion, the ink channel linearization and ink limit need to be set very carefully.
To have a maximum color gamut, the ink channel linearization and ink limit need to be set very carefully before calculating the ICC profile.
In order to obtain good printing results following settings are critical:
Print head tension as indicated.
Temperatures:

- Subtank 40 °C
- Print heads 42 – 44 °C

Negative pressure.
Profiling especially the ink channel linearization and ink limit.

MACHINE STOPPAGE
To avoid print head degradation, the inks should be flushed from the print heads before putting the printer at rest for longer time periods.

PACKING
Available in 1L bottle

STORAGE
For optimum performances and durability EvoJet 1700 UV series has to be stored under 30 °C.
Shelf life from date of manufacture is:

- All colors: 24 months
- White: 12 months
- Evoclean: 36 months

Always stir the ink well before use, especially the whites (risk of sedimentation during long-term storage).

HEALTH AND SAFETY
The vast majority of printing inks and related products formulated by Encres DUBUIT contain no substances of very high concern. Our products comply with the requirements of Directives 2011/65/EU (RoHS 2), 2015/863/EU (RoHS 3) and 94/62/EC (heavy metal concentration levels present in packaging). For more information about our regulatory compliance, please consult our Eco System document, available on request.

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PRODUCTS	CODE	DESCRIPTION
PROCESS COLOURS		
Evojet 1700 Cyan 42794	BEVO42794L	
Evojet 1700 Magenta 42795	BEVO42795L	
Evojet 1700 Yellow 42796	BEVO42796L	
Evojet 1700 Black 42797	BEVO42797L	
Evojet 1700 Light Cyan 42944	BEVO42944L	
Evojet Light Magenta 42946	BEVO42946L	
WHITE		
Evowhite 1700	BEVO5883L	Low viscosity for high speed printing
Maintenance		
EvoClean Solvent HLM 3556	D3556L	Cleaning and « flush » solvent
Wipers Superpolx	N1200A0909	9"x 9" per boxes of 150 formats
Swab	NTX712A	Large rectangular printing head swab for printing head cleaning
VARNISH		
EvoFinish 5752	BEVO5752L	Overprinting varnish, multi layers to give relief and braille effects – Non LED
EvoFinish 5148 LED	BEVO5148L	Overprinting varnish, multi layers to give relief and braille effects – For LED
ADHESION PROMOTOR		
EvoPrime H5099		Cloth applicable
EvoPrime XP45340		Inkjet printable

MEASURING LIGHT FASTNESS

Light Fastness is usually measured by exposing ink prints under light radiation produced by Xenon tube in comparison with master prints.
Those witness are called Blue Wool.
A standard blue wool textile fading test card is placed in the same light conditions as the sample under test.

A rating between 1 and 8 is awarded by identifying which one of the eight strips on the blue wool standard card has faded to the same extent as the sample under test

1 – denotes extremely poor colour fastness while 8 – is credited as being lightfast and permanent.

8 — Exceptional
7 — Excellent
6 — Very good
5 — Good
4 — Quite good
3 — Moderate
2 — Low
1 — Very low

EVOJET PROCESS COLOURS RATING:

Evojet Process Colors	
Cyan	7/8
Magenta	7/8
Yellow	7/8
Black	8
Light Cyan	7
Light Magenta	6/7

These values mean that EVOJET inks are suitable for outdoor use for 2 years if placed vertically and referred to the middle European climate.

It is recommended to test the final print in real outdoor conditions.

The Light Fastness of a print is the result of the combination:
Ink light fastness + printing conditions + life cycle conditions

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