

DI-LSX – The New Eco Solvent Ink

Marajet DI-LSX replaces Marajet DI-LS

Digital

2014

3. Jul

The current alternative to the Roland “EcoSolMax“ ink, Marajet DI-LS, is going to be replaced by Marajet DI-LSX. Its formulation was developed especially for applications requiring higher resistance and improved drying.

The replacement of Marajet DI-LS also became necessary due to a re-classification of a raw material.

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1. Background

The re-classification of the raw material “Tetraglyme“ which is contained in DI-LS and many OEM or alternative inkjet inks, has led to a labeling that does not comply with the Marabu company policy. Since the exchange of this raw material was not possible without a significant loss of quality, DI-LS will be replaced by DI-LSX.

On OEM and other alternative inks the labeling will change to “toxic for reproduction”.

2. General information

Marajet DI-LSX was developed in 2012 as an improved version of DI-LS.

At this time, however, the use of DI-LSX on Roland machines was limited to printers employing DX6 print heads.

After a slight optimization of the shades 459,489,455, Marajet DI-LSX is now compatible with all common Epson print heads (Epson DX 4, 5, 6).

Attention:

Marajet DI-LSX is no alternative to EcoSolMax2 for SJ Pro4 and XF 640 printers. A solution for these machines will be presented in due time.

For further information please refer to the [Marajet DI-LSX](#) Technical Data Sheet or ProductINFO on www.marabu-inks.com.





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3. Technical Data / comparison EcoSolMax

3.1. New labelling – after the re-classification of the raw material „Tetraglyme“:

These are the current hazard symbols for DI-LSX and EcoSolMax:

DI-LSX	ESM
	
Corrosive	Toxic, Corrosive

Some manufacturers have already switched to GHS in order to avoid the “skull and crossbones” hazard symbol.

These are the hazard symbols according to GHS labelling:

DI-LSX	ESM
	
Corrosive	Toxic, Corrosive

Marabu products will be labelled according to GHS within the transition period in 2015.

3.2. Resistance

Taber Abraser, DIN 53778 ISO 11989, number of double rub strokes without additional weight

Ink	IPA	Alkohol 90°	CS-10
DI-LSX Cyan	60	80	12
ESM Cyan	3,5	1	3
DI-LSX Magenta	10	100	4,5
ESM Magenta	4,5	1	3
DI-LSX Yellow	32	100	9
ESM Yellow	3,5	1	4
DI-LSX Black	20	50	3
ESM Black	4	1,5	5

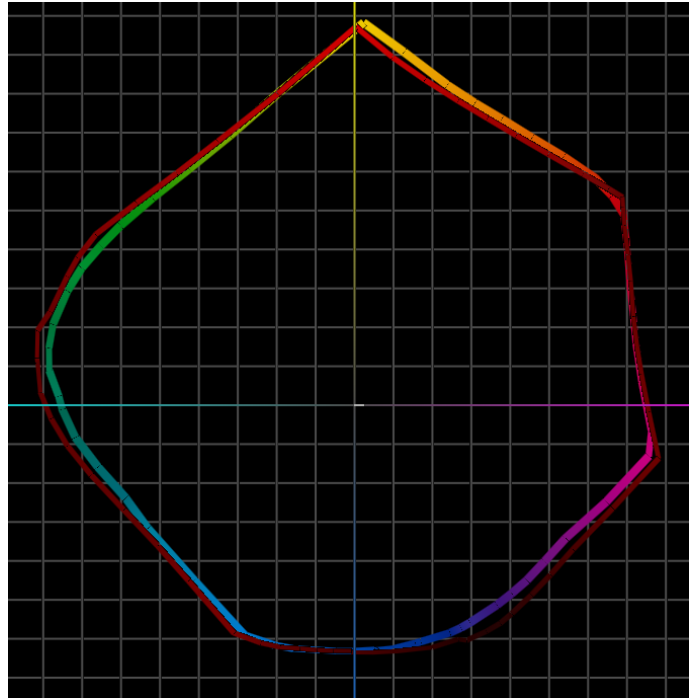
3.3. Colour gamut

The colour gamut of **DI-LS** compared to EcoSolMax.

EcoSolMax = red line
DI-LS = coloured line

Average deviation of the entire colour gamut:

dE 3,04

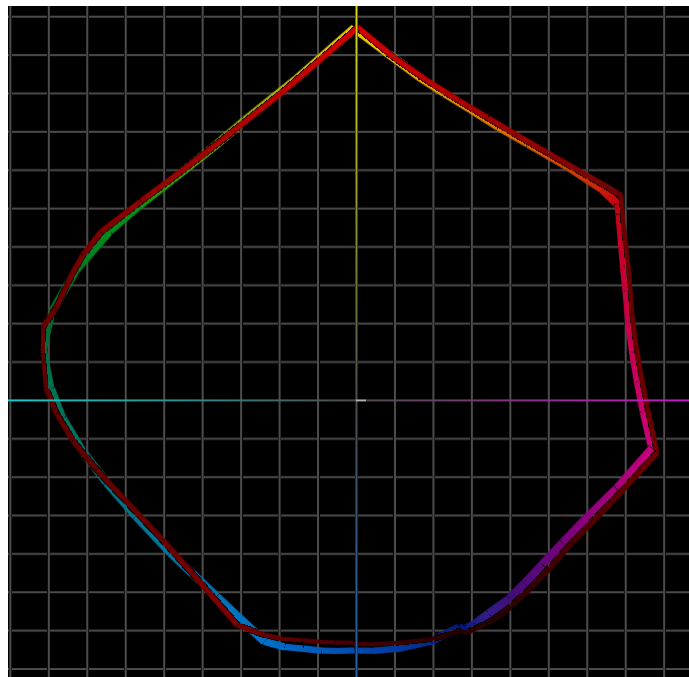


The colour gamut of **DI-LSX** is an even closer match to the EcoSolMax colour gamut:

EcoSolMax = red line
DI-LSX = true color line

Average deviation of the entire colour gamut:

dE 1,11



3.4. Drying properties

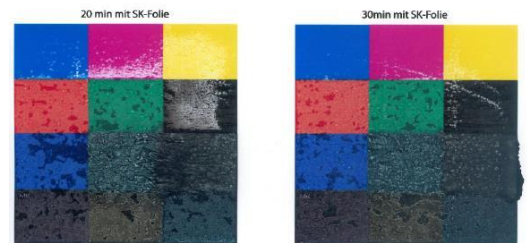
The drying characteristics of Marajet DI-LS, EcoSolMax, and DI-LSX in comparison:

The upper row shows the print, while the lower row shows the residual moisture, which was taken off the print with a piece of paper.

Marajet DI-LS

Trocknungstest an Roland SP300 / Medium: Blueback
DI-LS
Einstellungen: 720x1440CPI, dr. Variable Dry Speed 760, Print+Post 30 C,
ohne Profile, Ink limit 400, Ink reduzt. 100%
Datum: 21.05.2014

Print



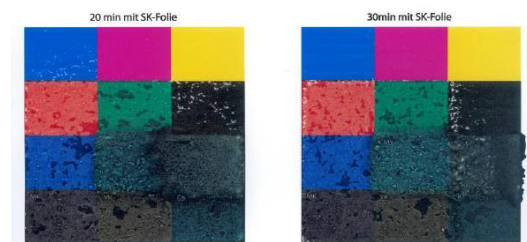
Residual moisture taken off the print



EcoSolMax

Trocknungstest an Roland SP300 / Medium: Blueback
EcoSolMax
Einstellungen: 720x1440CPI, dr. Variable Dry Speed 760, Print+Post 30 C,
ohne Profile, Ink limit 400, Ink reduzt. 100%
Datum: 21.05.2014

Print



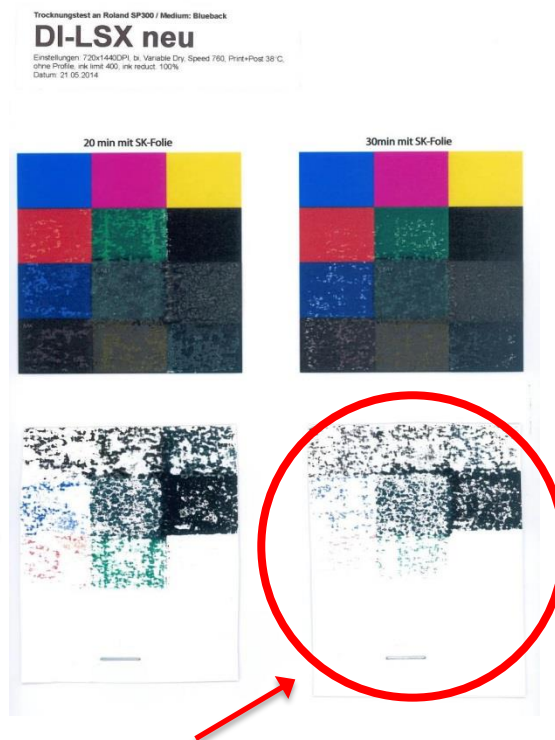
Residual moisture taken off the print



DI-LSX

Print →

Residual moisture taken off the print →



Drying properties made visible: practically no residual moisture

4.0.

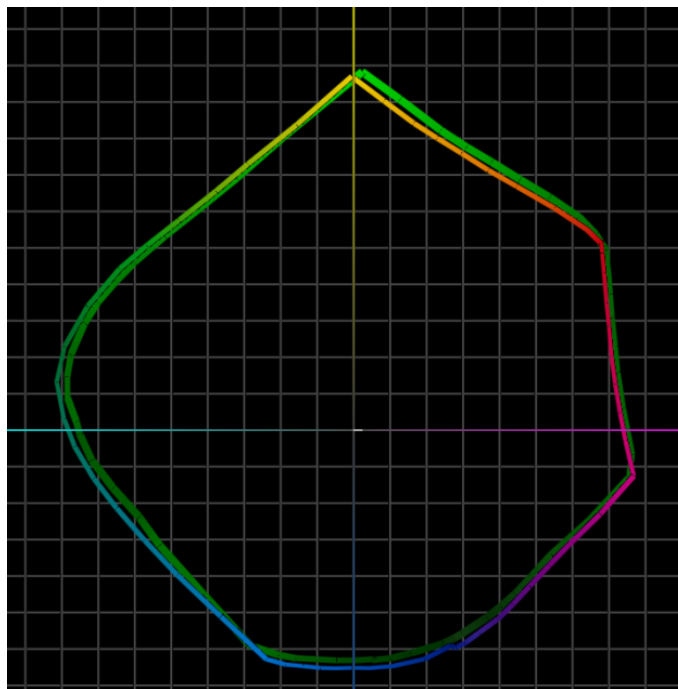
Change-over from DI-LS to DI-LSX

The chemistry of DI-LS and DI-LSX is compatible and therefore, the inks can be mixed.

In the case of a gradual change-over from DI-LS to DI-LSX (Plug & Print change-over), the colour gamut of the print will slightly change owing to the optimized colour gamut of Marajet DI-LSX. This difference will be about as noticeable as a gradual change-over from EcoSolMax to Marajet DI-LS.

The graph at the right side indicates the areas where the gamut will show a difference.

Especially grey shades will look more neutral with the new DI-LSX (DI-LS green line, DI-LSX coloured line).



For customers with high colour gamut sensitivity we recommend to change over all colour shades at once. This conversion from DI-LS to DI-LSX can be done without flushing the system in between. Then, the options “Pump up“ and “Fill Ink“ should be carried out.

According to the Technical Data Sheet of Marajet DI-LSX, along with the change-over from DI-LS to DI-LSX, the cleaner DI-UR 2 should be used as flushing and/or maintenance liquid instead of DI-UR. This cleaner has been chemically adjusted to the ink.

In the event of any queries, please contact:

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