

## Product Data Sheet:ESU Ink Series

**PROFILE BASIC INFORMATION**

<b>Model</b>	<b>ESU(BK,DC,DM,YE,LC,LM) : 440ml cartridge, 1Liter, 20Liter-Bottle</b>
<b>Description</b>	<b>Eco Solvent Based Pigment Ink</b>
<b>Application Head</b>	<b>EPSON Piezo Head (Epson 10000 and Micro Piezo AMC)</b>
<b>Compatible Printers</b>	<b>Roland Soljet Pro II SJ-500/540, SC-500/540, SJ-540EX, SC-540EX SC-545EX, SC-545EXW Soljet Pro II V, SJ-745EX, 1045 Soljet Pro-III XJ-640/740, XC-540, XC-540W Versacamm VP-300, VP-540 Versacamm SP-300, SP-300V, SP-540V Mutoh Roochooper II/III series, Spitfire Mutoh Valujet 1204,1304,1604,1608,1618 (Bulk ink only)</b>

**Product Description**

ESU ink is InkTec's Eco sol based ink. ESU ink boosts the performance of Roland Soljet and Versa Camm inkjet printers with improved scratch resistance, faster drying time, higher density, wider color gamut, broader media support. ESU ink is virtually odorless and durable up to two years outdoors without lamination. Six colors [BCMYLcLm] are available. Remarks: Flush inks before you switch to ESU

**Technical Specification**

<b>Color</b>	Wide color gamut and High density (See Page 3)
<b>Outdoor Durability</b>	2 years without laminating
<b>Shelf Life</b>	1 Years from date of manufacture
<b>Quality Standard</b>	Certified for ISO 9001 Quality System Standard Certified for ISO 10041 Environmental Management System
<b>Safety</b>	MSDS(Material Safety Data Sheet) available upon request

**Physical Properties**

Parameter	ESU		Unit	Measuring Instrument
	from	up to		
Surface tension	28.0	33.0	dyne/cm	Surface tensiomat 21 [Fisher scientific company]
Viscosity (dynamic)	3.5	4.8	cP	LVDV-II+ Pro [Brookfield Engineering Laboratory]
pH	-	-	—	Orion 3 Star [Thermo Electron Corporation]
Particle size	80.0	150.0	nm	Zeta Plus [Brookhaven instrument corporation]

☆ All measurements are made at 25±5 °C / the value after 30 seconds

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## Comparison Test [ ESU vs OEM ink ]

	ESU	OEM	Measuring condition
Drying Test	40 min Temp: 27 °C / Humidity 51%	40 min Temp.: 25 °C / Humidity: 59%	Measure time when stickiness of image disappear after printing. [By using A4 size uncoated paper]
Alcohol Resistance Test	BK: 3 times DC: 3 times DM: 3 times YE: 3 times	BK: 3 times DC: 3 times DM: 3 times YE: 3 times	Measure rubbing frequency until color is taken out from the printing image with an applicator swab soaked in Ethanol. Test is done 24 hours after printing
Scratch Resistance Test	BK: 14 times DC: 30 times DM: 14 times YE: 30 times	BK: 2 times DC: 5 times DM: 10 times YE: 4 times	Measure rubbing frequency until color is taken out from the printing image with fingernail Image. Test is done 24 hours after printing
Printing Option	1. Printer : Mutoh VJ-1604 2. Printing image : K,C,M,Y,R,G,B Sheet (Pro Lee_1_080328) >> A3 Size 3. Printing Option : 720 X 720 Bi 8 Pass, Quality 4 / Wave 1 Option 4. Heating Option : 40 °C/40 °C/40 °C 5. Rip : Wasatch 6.2 6. Media : 3M IJ-1220 PVC Sheet		
Result	1. Drying time : ESU = OEM		
	2. Alcohol resistance : ESU = OEM		
	3. Scratch resistance : ESU > OEM		
	4. Odor : Odorless [ESU= OEM]		
	☆ Weathering test result is available soon.		

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## Color gamut [ESU vs OEM Eco-sol ]

Measuring Condition	
Colorimeter	Spectrolino
Illumination	D50
Observer angle	2°
Density Standard	DIN
White base	Absolute
Filter	No

Printing Condition	
Printer	VJ-1604
Heat	40/40/40
Media	3M IJ-1220
Pass	8 Pass
Option	No ICC
Rip	Wasatch 6.2

