

# MUTOH

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**DESIGNSUPPLY**   
supporting creativity

## INK-ID

INK-1701 Black  
INK-1702 Cyan  
INK-1703 Magenta  
INK-1704 Yellow  
INK-0190 CR02  
INK-0199 Cleaning



## MUTOH DS2-SERIES DYE SUBLIMATION INKS

**The DS2-Series inks are dye sublimation inks tuned for direct printing onto synthetic fabrics, also allowing sublimation transfer. The inks give excellent image definition and sharpness and are specifically optimised for the latest generation piezo drop on demand print heads.**

**The wide colour gamut leads to very vivid and bright colours. Also good fastness results are obtained when using DS2 inks**

## Ink Part Numbers

VJDS2-100-BK  
1L Dye Sublimation ink - Black  
VJDS2-100-CY  
1L Dye Sublimation ink - Cyan  
VJDS2-100-MA  
1L Dye Sublimation ink - Magenta  
VJDS2-100-YE  
1L Dye Sublimation ink - Yellow

## Application - Substrates

The DS2 series inks have a double function:

### > Transfer Printing

The DS2 inks are optimised for use in combination with dedicated coated sublimation papers of different weights.

Next to their usability for transfer to synthetic fibres, they can also be used for transfer onto pre-treated rigid substrates, e.g. mugs, plates, magnetic vinyls, wood, place mats, ChromaLuxe® plates, tiles, mirrors, acrylic glass, metal, nylon, lighters, pens, CDs ...

(\*) 80% PES is not a fixed value. Mixed fibres with a percentage lower than 80% PES may also be possible. To be judged in combination with your target media and application.

### > Direct Printing

The DS2 inks can be used to print directly onto fabrics such as polyester or mixed fibres (min. 80% PES\*).

## Area of Application – Printer Compatibility

Mutoh DS2 Dye Sublimation inks are suited for the ValueJet series printers.

- The ValueJet VJ-1938TX is a textile printer suited for direct printing of polyester fabrics.
- For transfer printing, the 'W' versions of the ValueJet are available: VJ-1604WX, VJ-1624WX, VJ-1638WX, VJ1924W, VJ-1938WX, VJ-1948WX, VJ-2638X dye sub version and DraftStation RJ-900XG.

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## DYE SUBLIMATION INKS

Compatibility Table	Paper	Closed Fabric	Open Fabric
VJ-1938TX	👎	👍	👍
VJ-1604WX	👍	👍	👎
VJ-1624WX	👍	👍	👎
VJ-1638WX	👍	👍	👎
VJ-1924W	👍	👍	👎
VJ-1938WX	👍	👍	👎
VJ-1948WX	👍	👍	👎
VJ-2638X dye sub	👍	👍	👎
DrafStation RJ-900XG	👍	👎	👎

### Application – Guidelines

>For direct printing:

- The drying and fixation process equipment can be a calendar or a heat press.
- Typical temperature is between 180-220°C and corresponding exposure time of 180-30 seconds.
- Mutoh suggests to do a final wash in order to reach a softer final touch and to increase the general fastness. Washing will allow the removal of the thickeners contained into the fabric pre-treatment. It will also allow removing any excessive colorant which was not completely fixed and which lies on top of the fabric.

>For transfer printing:

- Before passing the paper through a calendar or heat press for transfer, the sublimation paper has to be dry.
- A transfer temperature between 180-220 °C is necessary with a corresponding exposure time between 180 seconds and 30 seconds.
- Time and temperature may vary depending on the type and nature of the material you are transferring to.

### First Ink Installation

All new water-based ValueJet printers are pre-flushed with water-based storage/pre-wetting liquid (CR02). For start-up of a new printer it is allowed but not necessary to use CR02 to pre-wet the tubing and the head for an easy ink-load.

### Cleaning for Regular Maintenance

The cleaning recommended for regular maintenance and as capping fluid is the (Part number: MY-8084X) liquid. After using the maintenance liquid it is required to use demineralised water or water-based storage/pre-wetting liquid (Part number: RJ80CR02-XXX) afterwards.

### Shelf Life

The shelf life of the ink is 12 months. Before using the ink, it is recommended to let the ink stabilise for 24 hours. Please use the ink under the following environmental circumstances:

- Recommended temperature: 20-25°C
- Recommended humidity: 40-60% RH (non-condensing)

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## DYE SUBLIMATION INKS

Property	Score per Colour			
Light fastness according to ISO-B02 (*)	C (5-6)	M (6-7)	Y (6-7)	K (6)
Washing fastness according to ISO 105-C02 (*)	C (4-5)	M (4-5)	Y (4-5)	K (4-5)
Perspiration fastness according to ISO 105-E02 (*)	C (4-5)	M (5)	Y (4-5)	K (4-5)

(\*) Fastness ranges (min-max):

Light: 1-8

Washing: 1-5

Perspiration: 1-5

### Storage

Please keep the following recommendations at your warehouse for storage of the ink:

- Temperature lower than 25°C
- Keep away from light and heat sources

### Labelling

>Y, C and K are free of risk labelling.

>M has the following labelling:

- H317 - May cause an allergic skin reaction in case of direct contact with the ink.
- This is only valid when touching wet ink during ink handling, filling, pouring...
- After transfer onto polyester, the DS2 ink is locked into the fibres by the sublimation process. The ink does not stay on the surface of the fabric.

There is no skin contact, and an allergic reaction is highly unlikely to occur.

>When pouring fresh ink or handling waste ink, wearing gloves is always recommended to avoid skin irritation.

>For apparel applications, washing is recommended when using dye sublimation ink in a direct printing set-up.

>At all times Safety Data Sheets (SDS) of Mutoh inks can be downloaded from:  
<http://www.mutoh.eu/en-us/downloads/sds.aspx>

### Certification

DS2 inks are Oeko-Tex® compliant.

Oeko-Tex® certification is based on the final fabric product. It can only be delivered by testing a specific fabric and defining the full process of printing, drying and fixation.

We can confirm, however, that the inks are Oeko-Tex® compliant. This means in case a fabric producer performs a full certification, the inks will not inhibit a positive result. With proper source textile and a correct workflow, the inks allow an Oeko-Tex® Standard 100 Class I certification.

In case of direct printing, for Oeko-Tex certification, washing is required.

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