FUJIFILM

Product Information

SERICOL

Flexo JD

UV Curing Flexo Printing Inks

Flexo JD is a high gloss UV flexo ink system that incorporates a wide range of colours, process inks, metallic shades and specialist products.

Finish

Gloss

Cure

160 watt/cm (400 watt/inch) bulb 100% power.

Wash-up

Plates, rollers ancillaries:	DFGC1 General Cleaner
Deep cleaning of anilox:	DFDCL Deep Clean

Substrates

Most grades of supported and unsupported synthetic label stock including PE, PP, PVC, TC-PE, TC-PP, PET, coated papers, some coated thermal papers and metallised foils.

Plates and Tape

Most plates that are compatible with UV inks.

Doctor Blades

Reverse angle and chambered doctor blades.

Substrate Treatment Level

38-44 dynes/cm. Corona treatment may also improve adhesion and ink printability.

Anilox Rolls

Ink Type	Line Count	Anilox Volume
Four colour process	900-1200 lpi	2.3-4.0 cm^3/m^2
Process+ Black	350-1200 lpi	3.5-6.5 cm^3/m^2
Pantone Colours	350-800 lpi	5.5-8.0 cm^3/m^2
High Opacity Colours	HOC	HOC
White	150-250 lpi	12-20 cm^3/m^2
Supernova White	HOW3	HOW3
Metallics	250-325 lpi	7-15 cm^3/m^2
Varnish	150-350 lpi	6-10 cm^3/m^2
Sleeve Whites	300-400 lpi	6.5-10 cm^3/m^2

Key benefits of Flexo JD include:

- Low viscosity press ready colours.
- High colour density.
- Adhesion to a wide range of synthetic substrates, including top coated PE & PP, PVC, PET some thermal papers, metallised foils and most commonly available papers.
- Suitable for a wide range of applications including self-adhesive labels and unsupported films for some sachets and pouches, and shrink sleeves.
- Over-printable with most thermal transfer ribbons and cold foil adhesives.
- Good hot foiling properties.
- PANTONE® Matching Formulae available.
- Flexo sleeve white for shrink sleeve applications.

Print Characteristics

Flexo JD inks produce outstanding printed results over a wide range of applications, conditions and substrates. Flexo JD inks have reliable intercoat adhesion and foil blocking properties with excellent flow and gloss characteristics over a wide range of press speeds.

Doctor Blades

The low viscosity of the ink system makes it suitable for reverse angle and chambered doctor blade systems.

Plates and Tape

Flexo JD is compatible with the majority of plate materials recommended for UV ink systems. The choice of plate and cushion mount can have an impact on the print quality.

Curing

Adhesion is normally obtained immediately upon curing; however maximum adhesion, chemical and mar resistance will be obtained up to 24 hours after initial curing.

Flexo JD752 Supernova White

Flexo JD752 Supernova White is an ultra opaque flexo white that can be used as an alternative to rotary screen white in combination printing on clear filmic substrates. To obtain maximum opacity the use of specialist high volume anilox rolls is recommended. Contact FSIS for further details.
Printing fine text with JD752 is not generally recommended due to the high volume anilox rolls generally used. Lower anilox volumes will improve definition but at the expense of opacity. Contact FSIS for further information.

Combination Printing

Flexo JD inks can be printed over Rotary Screen RN034 Combination White without the addition of a trapping additive. Please note that RN034 is silicone free and good housekeeping is required to avoid contamination. Further information is provided in the Rotary Screen RN034 product information sheet.

Addition of 2% ZEA12 Trapping Additive to Flexo JD colours, should be made, when overprinting standard Rotary Screen RN752 White.

Pre-Production Testing

Flexo JD is formulated to adhere to most grades of top coated or corona treated filmic materials with surface tension levels of 38 dyne/cm or higher. However, it is strongly recommended that all substrates and over-printing processes are tested before use on a commercial run.

- Substrates can vary between manufacturers, and between batches from the same manufacturer.
- It is recommended to thoroughly test compatibility when overprinting with thermal ribbons, toners, inkjet, hot and cold foiling.

The end-user must determine suitability of this product for the intended use prior to production.

Colour Range and Resistance Properties

The Flexo JD standard base colours are formulated for optimum colour consistency, colour strength and press performance.
For product and light resistance properties see the Flexo JD Technical Information sheet.
Additional resistant base colours are used for higher product and light resistance applications.
Printers should ensure that light fastness/resistance properties are appropriate for their application before use in production.

Product Range

4 Colour Process

JD052 Flexo UV Process Yellow
JD135 Flexo UV Process Magenta
JD215 Flexo UV Process Cyan
JD004 Flexo UV Process Black
JD005 Flexo UV Pro+ Black
JDR52 Flexo UV Process Yellow
JDR35 Flexo UV Process Magenta
JDR15 Flexo UV Process Cyan
JDR04 Flexo UV Process Black

Standard Base Colours

JD001 Flexo UV Tinting Black
JD009 Flexo UV Dense Black
JDR25 Flexo UV White
JD025 Flexo UV Opaque White
JD045 Flexo UV Yellow
JD103 Flexo UV Orange
JD199 Flexo UV Warm Red
JD097 Flexo UV Red 032
JD163 Flexo UV Rubine Red
JD125 Flexo UV Rhodamine Red
JD237 Flexo UV Purple
JD127 Flexo UV Violet
JD254 Flexo UV Blue 072
JD260 Flexo UV Reflex Blue
JD240 Flexo UV Pro. Blue
JD320 Flexo UV Green
JD381 Flexo UV Mixing Base

Resistant Colours

JD064 Flexo UV Resistant Yellow
JD164 Flexo UV Resistant Rubine Red
JD165 Flexo UV Resistant Rhodamine Red

Whites

JD752 Flexo UV Supernova White
JDSWH Flexo UV Sleeve White
JDSW2 Flexo UV High Performance Sleeve White
JDA01 Flexo Special White

Metallics

JD462 Flexo UV High Lustre Silver
FL461 Flexo UV Rich Pale Gold (PMS 873)
FL462 Flexo UV Silver (PMS 877)
FL489 Flexo UV Rich Gold (PMS 871)

Available in 5kg units.

Additives

ZE818 Flexo Thinner - General use - Useage 1-10% - Available in 5 ltr units.
ZEA12 Trapping Additive - Improves levelling and improves trapping over standard silicone containing rotary screen white - Useage 1-2% - Available in 1 ltr units
ZE824 Cure Additive - Improves cure if required - Useage 1-3% - Available in 1 kg units

Resistant Colours

Resistant colours are formulated to match as closely as possible the relevant standard shade. However the resistant pigments used may appear weaker and dirtier than the corresponding standard shade.

PANTONE® Matching System

Flexo JD range includes Pantone® base colours plus Black, White and Mixing Base to produce accurate simulations of the PANTONE® colours in the coated ('C' suffixed) section. The Fujifilm package includes:

1. PANTONE® Color Formula Guide - The original PANTONE® book.
2. Fujifilm Formula Guide - Formulations given in percentages by weight.

Storage

Containers should be tightly closed immediately after use. Uncontaminated press returns should be stored under the same conditions as the unopened ink containers. Flexo JD inks should not be stored in direct sunlight, or near heat sources and should be kept away from peroxides. Refer to the Safety Data Sheet for materials and conditions to be avoided. For optimum shelf-life, all products should be stored at moderate temperatures between 5°C and 30°C. Storage outside of these temperatures may lead to deterioration in the performance of the product.

When stored at optimum storage conditions, Flexo JD inks are expected to have a shelf life of approximately 12 months from the date of manufacture. In-house colour matches should be used within 3 months of the original date of blending.
If metallic inks are incorporated into colour matches the blend may have a shelf-life of only a few days.

Safety and Handling

Flexo JD Inks:

- Have a flashpoint greater than 60°C and is therefore not classified as "dangerous substance" under the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR).

Comprehensive information on the safety and handling of Flexo JD inks and associated products is given in the appropriate Safety Data Sheets.

Environmental Information

Flexo JD Inks:

- Do not contain ozone-depleting chemicals as described in the Montreal Convention.
- Are formulated free from aromatic hydrocarbons.
- Are free from any volatile solvent and can therefore be considered to have less impact on the environment when compared to solvent-based products.

Fujifilm Speciality Ink Systems Limited:

- Has certification to the International Environmental Standard, ISO 14001.
- Has certification to the Quality Management Standard, ISO 9001.
- Has certification to the Occupational Health and Safety Standard, OHSAS 18001.
- Is committed to minimising the risk to users of our products, and also to minimising the impact of our activities on the environment, from formulation through to production and supply.
- Research and development team, work to an in house Health, Safety and Environmental policy, termed 'Design for Health, Safety and Environment', with the aim of proactively developing products with the least impact on health, safety and the environment.
- Regularly review and monitor our impacts and activities, setting objectives and targets as part of a continual improvement process.
- Is committed to reducing waste through better use of raw materials, energy, water, re-use and recycling.

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their particular requirements. Our policy of continuous product improvement might make some of the information contained in this Product Information sheet out of date and users are requested to ensure that they follow current recommendations.

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