

Product Information

SERICOL

Flexo JJ

LED UV Curing Flexo Printing Inks

Flexo JJ is a gloss LED UV flexo ink system that incorporates a range of colours, process inks and specialist products.

Finish

Gloss

Cure

Formulated to cure under typical industry LED systems

Wash-up

Plates, rollers ancillaries:	DFGC1 General Cleaner
Deep cleaning of anilox:	DFDCL Deep Clean
Automatic solvent wash out:	DFAUT Autowash Cleaner

Substrates

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

Plates and Tape

Most plates that are compatible with UV inks.

Doctor Blades

Reverse angle and chambered doctor blades. It is recommended that a doctor blade is always used.

Substrate Treatment Level

38-44 dynes/cm. Corona treatment may also improve adhesion and lay of the ink.

Anilox Rolls

Ink Type	Line Count	Anilox Volume
Four colour process	900-1200 lpi	2.3-4 cm ³ /m ²
Process+ Black	350-1200 lpi	3.5-6.5 cm ³ /m ²
Pantone Colours	350-800 lpi	5.5 cm ³ /m ²
White	150-250 lpi	12-20 cm ³ /m ²
Supernova White	HOW3	HOW3
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 JJ 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 sachets and pouches
- 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 JJ inks produce outstanding printing results over a wide range of applications, conditions and substrates. Flexo JJ 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. To obtain optimum results it is recommended that a doctor blade is always used.

Plates and Tape

Flexo JJ is compatible with the majority of plate materials recommended for UV ink systems. The choice of plate and backing tape used to mount the plates can have an impact on the quality of the print.

Curing

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

Flexo JJ752 Supernova White

Flexo JJ752 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. Obtaining high opacity requires the use of specialist high volume anilox rolls - see section entitled anilox rolls for further details.

The printing of fine text with JJ752 is not generally recommended with high volume anilox rolls. Lower volumes will improve definition but this will be at the expense of opacity of solid areas.

The use of high volume anilox rolls will lead to the need for frequent manual ink replenishment on most narrow web presses where ink pumping systems are not in use. Pumping systems can be employed to improve efficiency, but it is important that if JJ752 is stored in bulk containers, a re-circulation system is used to keep the ink homogeneous.

Pre-Production Testing

Flexo JJ 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 blocking foils are tested before use on a commercial run. Supposedly similar substrates can vary between manufacturers, and between batches from the same manufacturer.

Certain plastics may be impregnated with lubricants that, like plasticiser migration, may impair adhesion and block resistance. It is also recommended to thoroughly test for compatibility when overprinted, as ribbons, toners and pigments used by overprint technologies can sometimes vary.

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

Colour Range and Resistance Properties

The Flexo JJ standard base colours are selected for their colour accuracy and strength so not all of the colours offer a high degree of resistance to outdoor weathering, direct exposure to sunlight or resistance to strong alkaline or acidic materials. A range of resistant colours is available. Printers should ensure that the light fastness and resistance properties are appropriate for their application before starting a production run.

Standard Product Range

4 Colour Process

JJ004	Flexo UV LED Process Black
JJ052	Flexo UV LED Process Yellow
JJ135	Flexo UV LED Process Magenta
JJ215	Flexo UV LED Process Cyan
JJ005	Flexo UV LED Pro+ Black

Standard Base Colours

JJ001	Flexo UV LED Tinting Black
JJ025	Flexo UV LED White
JJ045	Flexo UV LED Yellow
JJ103	Flexo UV LED Orange
JJ097	Flexo UV LED Red 032
JJ163	Flexo UV LED Rubine Red
JJ199	Flexo UV LED Warm Red
JJ125	Flexo UV LED Rhodamine Red
JJ127	Flexo UV LED Violet
JJ254	Flexo UV LED Blue 072
JJ260	Flexo UV LED Reflex Blue
JJ240	Flexo UV LED Pro. Blue
JJ320	Flexo UV LED Green
JJ381	Flexo UV LED Mixing Base
JJ391	Flexo UV LED Gloss Varnish
JJA01	Flexo UV LED Matt Overprintable Varnish

Resistant Colours

JJ064	Flexo UV LED Resistant Yellow
JJ164	Flexo UV LED Resistant Rubine Red
JJ165	Flexo UV LED Resistant Rhodamine Red

Whites

JJ752	Flexo UV LED Supernova White
JJSW2	Flexo UV LED High Performance Sleeve White

Available in 5kg units.

Resistant Colours

Resistant colours are designed to match as closely as possible the relevant standard shade. There is however only a limited choice of pigments suitable for this application so resistant colours may appear weaker and dirtier than a corresponding standard shade.

PANTONE® Matching System

The Flexo JJ 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 JJ 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 JJ 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.

Safety and Handling

Flexo JJ 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 JJ inks and associated products is given in the appropriate Safety Data Sheets.

Environmental Information

Flexo JJ 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.

The information and recommendations contained in this Product Information sheet, as well as technical advice otherwise given by representatives of FUJIFILM Speciality Ink Systems Limited and its associated companies, whether verbally or in writing, are based on our present knowledge and believed to be accurate. However, no guarantee regarding their accuracy is given as we cannot cover or anticipate every possible application of our products and because manufacturing methods, printing stocks and other materials vary. For the same reason our products are sold without warranty and on condition that users shall make their own tests to satisfy themselves that they will meet fully 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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