

Multidyne JY

UV Curing Screen Inks

SERICOL

Product

Information

Multidyne JY is a fast curing block resistant UV ink designed for use on most polypropylene including sheet and fluted types.

Main Characteristics

Finish	Drying	Thinning & Wash-up	Mesh	Stencil Type	Coverage & Mesh No.	Applications	Colour Range
Gloss	25-35 metres per minute through 150.34 PW mesh with 2x 80-watt/cm ² lamp for curing.	Thinning: Up to 5% Multidyne JY Thinner ZA201 if required. To increase cure speed, add up to 5% ZE824 Wash up: CPS Screen Wash A8 or Wash up #1	140.34 - 165.34 monofilament	Any UV resistant stencil. Sericol Emulsion: Dirasol 915 Dirasol 916 Indirect or 18/25 Micron Capillary Film	80 - 100 m ² /L through 140.34 PW mesh	Fluted polypropylene (e.g. Corflute™), some treated polypropylenes, polyolefins, and some synthetic papers.	17 lead-free fade-resistant shades including process colours.

Properties

Excellent block resistance, screen stability and fast cure speeds make it ideal for high speed printing. Good adhesion on a wide range of dyne treatment levels and good scratch resistance. High colour strength. NVP-free.

IMPORTANT: Stir well before every use. Multidyne JY is designed for use on polyolefins which are corona discharge treated during manufacture. The efficiency of this treatment decreases with age; therefore it is recommended that fresh stock with a surface tension of at least 40-42 dynes/cm² is used. Any surface contamination may impair adhesion and water resistance of the finished print.

Plastics

Certain plastics may be impregnated with lubricants which, similar to the migration of plasticisers, may impair adhesion and block resistance - even after considerable time post printing. This can usually be overcome by wiping the surface with white spirit before printing. **Ensure ink & substrate compatibility is tested before commencing any commercial run.**

Outdoor Use

Accelerated Weathering:

Tests have been conducted on prints produced using Multidyne JY which indicate that provided application recommendations are followed, a life of up to 18 months outdoors can be expected. Metallic shades may experience much shorter outdoor lives.

Curing Information

The curing schedule quoted is typical for modern UV dryers. Actual curing rates depend on a number of factors including film thickness, opacity, the number and type of lamps used (including lamp emission spectrum, power and efficiency) and the stock being printed. Although cure speeds of colours are similar, care should be taken to ensure that each colour is cured correctly to achieve optimum adhesion to substrate and overprint adhesion of subsequent colours.

Post Curing

The chemical reaction initiated by the UV dryer will continue for some time after the dried prints emerge from it. This reaction can adversely affect intercoat adhesion and care should be taken that prints are not over-cured and that the adhesion of subsequent colours is checked at regular intervals.

Special Recommendations

To obtain the best results from the Multidyne JY system, the following recommendations must be followed during colour matching and print production.

- The 11 colours (plus JY381) in the Multidyne JY matching system may be:
 - Printed over and under each other
 - Intermixed for matching purposes, provided that:
 - The combined proportion by weight of White, and Extender does not exceed 80% of the total mix.
 - The individual proportion of any one colour, except black, is not below 5% of the total mix.
- No colour, other than those from the Multidyne JY system can be added.
- The Multidyne JY system must be printed on to suitably durable and compatible substrates.

Colour Range

The Multidyne JY range consists of 9 base mixing colours designed for use in colour matching in conjunction with JY001 Tinting Black, JY021 White and JY381 Extender Base.

Tinting Black should not be used where black line printing is required. In these circumstances JY010 Black should be used as it has higher opacity and colour strength than the tinting shade.

For process printing, Multidyne JY has high strength colours which are and suitable for all process work. JY010 Black is recommended for use with the process inks.

Two metallics powders are also available, Multi-purpose Silver Powder 850143 and Multi-purpose Gold Powder 850145.

Metallic Shades

Metallic shades can be obtained by mixing JY381 Extender Base with gold and silver powders. Recommended mixing ratios are as follows:

Gold: 850145 Multi-purpose Gold Powder
Up to 20% by weight

JY381 Mixing Clear
80% by weight

Silver: MP483 Silver Paste
Up to 15% by weight

JY381 Mixing Clear
85% by weight

(Some mechanical stirring is recommended to fully disperse the MP483)

Multidyne JY metallics may be tinted if required by 5 - 10% additions of Multidyne JY Seritone base colours. When mixing metallic shades, only make up sufficient quantities to print with as the mixed metallic colour has a limited pot-life of up to 24hrs.

Storage

Containers should be tightly closed immediately after use. At the end of long printing runs surplus ink should be disposed of. Multidyne JY inks should not be stored where they will become hot, e.g. in direct sunlight or close to an un-insulated roof.

In the interests of maximum shelf life, storage temperatures should be between 10°C and 30°C.

When stored in a cool environment the inks are expected to have a shelf life of approximately 18 months from the date of manufacture.

Standard ColoursMultidyne JY Colours:

JY001	Tinting Black
JY021	White
JY064	Yellow GS
JY066	Yellow RS
JY114	Orange
JY121	Red YS
JY164	Red BS
JY165	Magenta
JY127	Violet
JY230	Blue
JY325	Green
JY381	Extender Base

JY004U Black

Available in 5kg containers.

Multidyne JY Process Colours

Unstructured (U) and Structured (S) versions available: -

JY004U / JY004S	Process Black
JY052 U/ JY052S	Process Yellow
JY135U / JY135S	Process Magenta
JY215U / JY215S	Process Cyan
JY381 / JY396	Process Extender

Available in 5 kg containers.

Thinners

ZA201	Multidyne JY Thinner
ZE824	Flashcure additive

Available in 5 L containers.

Safety and Handling

The Multidyne JY system:

- Is formulated to be free from any known or suspected toxic, carcinogenic, mutagenic or reprotoxic chemicals.
- Is formulated free from lead and other heavy metals

Comprehensive information on the safety and handling of Multidyne JY screen inks and thinners is given in the appropriate Sericol Material Safety Data Sheet (MSDS), which is available from the Sericol Product Catalogue CD or upon request.

Environmental Information

The Multidyne JY system:

- Is free from heavy metals
- Does not contain ozone depleting chemicals as described in the Montreal convention.

The information and recommendations contained in this Product Information sheet, as well as technical advice otherwise given by representatives of our Company, 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 fully meet 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.

SERICOL
More than ink...Solutions.

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