

Technical Data Sheet

Date of issue: 21.05.2023

Version No: 02

INKMASTER LAMISTAR PV Series (NT)



Description

LAMISTAR PV inks are optimally pigmented Toluene free PU modified Gravure Inks, specially formulated for quality routine lamination jobs using various grades of Polyester films. These inks have excellent printability on Gravure Printing Machines running up to speeds of 300 M/M; maintain stable adhesion, and minimum solvent retention levels. These inks are specially designed to give best results at high press speeds due to their excellent rheological behaviour and the chemistry employed. These inks are highly stable on the printing machines, thereby enabling management of long as well short job runs.

End Use

Very low odour and low solvent retention characteristics make these inks highly suitable for the packaging of food products such as coffee, biscuits, snack foods, cooked foods, confectionery etc.

Printing Machines & Press Speed

LAMISTAR PV inks Series is tailored to run effortlessly on Gravure printing machines. This inks may be printed at speeds from 100 to 300 m/min, depending upon press drying capabilities and the solvent used for reduction. End of the press Chilled Roller arrangement to cool down the printed web before it enters the "Rewind Web" is recommended, when the printing speeds are above 200 M/Min. Additionally, one needs to ensure that the re-wind reel pressure in kgs is within the limit to avoid any blocking or clinging of the film within the rewind role.

Cylinders

LAMISTAR PV inks are suitable for all types of engraved cylinders (chemical, mechanical and laser engraving).

Surface Printing Substrates

LAMISTAR PV inks are suitable for reverse printing a number of films:

- PET (Normal)
- CT-PET
- CC-PET
- BOPP (>38 Dyne/Cm)

Other films after verification.

Benefits

- Toluene Free.
- Higher solids compared to Standard Vinyl Inks.
- Good bond strengths.
- Almost instant adhesion.
- Low solvent retention.
- Reliable, high performance results.
- Free from migrating plasticizer resins.
- Does not contain pigments based on heavy metals.
- Does not contain plasticizers banned in certain countries.
- Good Printing Stability and Excellent Dot Reproduction (up to 7 % Dots) at higher print speeds.
- Excellent freeze resistance properties: making the ink suitable for the extreme cold weather.

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Color Range



Full range of colors is available, which may only occasionally be restricted by specific end use related resistance properties requirements..

Process Color & White Range:

Product Description	Viscosity	Solid %	L.F.(1-8 Scale)
LAMISTAR PV Medium	20 ± 5	18 ± 2	N A
LAMISTAR PV White ARSR LF	20 ± 5	41 ± 2	>7
LAMISTAR PV Proc. Yellow 12 ARSR LF	20 ± 5	22 ± 2	4
LAMISTAR PV Proc. Magenta 57:1	20 ± 5	22 ± 2	4-5
LAMISTAR PV Proc. Cyan 15:3 ARSR LF	20 ± 5	22 ± 2	>7
LAMISTAR PV Proc. Black 7 ARSR LF	20 ± 5	24 ± 2	>7

Spot Colors / Shades:

Product Description	Viscosity	Solid %	L.F.(1-8 Scale)
LAMISTAR PV Orange	20 ± 5	22 ± 2	4-5
LAMISTAR PV Violet (NON ARSR)	20 ± 5	22 ± 2	3-4
LAMISTAR PV Violet (ARSR)	20 ± 5	22 ± 2	6-7
LAMISTAR PV Green	20 ± 5	22 ± 2	7-8
LAMISTAR PV Warm Red	20 ± 5	22 ± 2	3-4
LAMISTAR PV Magenta (ARSR)	20 ± 5	22 ± 2	5-6
LAMISTAR PV Popular Red	20 ± 2	22 ± 2	3-4
LAMISTAR PV potato green	20 ± 2	22 ± 2	6 - 7
LAMISTAR PV Royal Blue	20 ± 2	22 ± 2	3-4
LAMISTAR PV GOLD INK	20 ± 2	37 ± 3	NA
LAMISTAR PV SILVER INK	20 ± 2	32 ± 3	NA

Note: Several special shades as well as Dye Based Lacquers and Imitation Gold shades also are available on request.

Printing Viscosities (Dilution Requirement):

Cup Used:	DIN Cup 4	AFNOR Cup 4	Ford 4 Cup	Zahn 2 cup
Viscosity :	15-19 sec	16-21sec	13-16 sec	18-21 sec

*The above figures are given for guidance only.

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Dilution



Solvent and solvent blends used for dilution may need to be adjusted in accordance to printing conditions: Namely, printing process, printing speed, oven capability, and graphics such as solids, lines, half tone, vignette and process printing.

To achieve good DOT Re-productivity use of extra retarder, such as Methoxy Propyl Acetate /MIBK

Depending on printing conditions, the following solvents may be used as retarder or accelerator

Accelerator: Ethyl Acetate, (generally for white and other solid colors)

Standard: N Propyl Acetate: Ethyl acetate (50:50)

Toluene: Ethyl Acetate (50: 50) [As per customer requirement]

Retarder: Methyl isobutyl ketone (up to 10 % for fine half tones)

It is essential to ensure solvent removal, especially while employing excessive slow drying solvents, to avoid blocking and to maintain the low odor properties of these inks.

Reducing System

Toluene: MEK: EA	60: 30: 10
MEK: EA: MIBK	40: 50: 10

*It is always better to mix the solvents before adding to the ink.

*Always shake the container vigorously before emptying the inks.

Shelf Life

The inks and varnishes of this series have under normal conditions a shelf life of at least **6 months** (White) and **12 months** (all colors).

- Normal conditions mean:
- Storage in tightly closed containers.
- Temperature not exceeding 25°C for weeks or 30°C for days.

Please take notice of the following:

The performance results indicated in this literature are only indicative under controlled conditions of laboratory with virgin & standard packaging grade films. Please do not use lower grades or substandard films. **Berger Paints Bangladesh Ltd.** will not take any responsibility for abnormal results on those cases.

Berger Paints Bangladesh Ltd. is responsible only to the tune of replacing the ink consumed in case of any printing related problems clearly assigned to incompatibility with the ink system recommended by **Berger Paints Bangladesh Ltd** for the print job under consideration. If you require any further information please do not hesitate to contact us or visit our website.

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