



Technical Information

Esterlam Plus Inks

- **Description**

This ink is formulated for reverse printing by gravure system which further goes in lamination with solvent base or solvent less adhesive. Vinyl based resin system suitable for various flexible films.

- **Application**

Flexible packaging for confectionary and general purpose product pouches. Lamination bonds are dependent on substrate type and quality, adhesive type and film weight applied.

- **Print Process**

Gravure

- **Print Substrates**

Plain Polyester, Corona treated Polyester (48-52 dynes/cm), chemically coated Polyester, treated BOPP (38-42 dynes/cm). Consult our technical team before printing on BOPP

- **Lamination**

Suitable for solvent-based and solvent-less lamination.

- **Key Product Features**

- ✓ Excellent printability resulting in clean and sharp images.
- ✓ Low solvent retention/ low odour.
- ✓ Suitable for food packaging (External Packaging only)
- ✓ High bond strength
- ✓ Extremely stable and excellent re-usability
- ✓ Excellent half tone reproduction
- ✓ Suitable for speed from 100 M/M to 220 M/M
- ✓ Desired shades can be obtained by intermixing standard colors at press room level.

Solvent system	
Normal	Toluene:Ethyl Acetate- 50:50
Halftone Printing	Toluene:Ethyl Acetate:MIBK- 40:40:20
Retarder	MIBK upto 10%

- **Bond strength**

- ✓ Optimum lamination bond strength: superior to 120g/15 mm (under laboratory conditions) for most structures such as : PET to LDPE Films – actual bond strengths depend on the films, adhesives and ink and ink and adhesive film weights employed for laminating.
- ✓ Good lamination bond strength on polyester (PET) structures chemical treated polyester films.

- **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-REPRODUCIBILITY @ below 8% level, Use of Extra Retarder is Recommended

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

- ✓ Accelerator: MEK, Ethyl Acetate
- ✓ Slow: Toluene
- ✓ Retarder: MIBK, Methoxy Propyl Acetate

It is essential to ensure solvent removal, especially while employing excessive slow drying solvents, to avoid blocking and to maintain the low odour properties of these inks. High retained alcohol levels are known to interfere with the performance of the laminating adhesive.

- **Additional products**

- **Esterlam Series-** The Esterlam Inks are also Vinyl based but have a relatively poor bond and color strength. Adhesion is best in chemically coated polyester and printing on Plain polyester (Dyne level less than 48 dynes/cm) is not recommended.
- **BOPP Additive:** 5% Converting Agent can be added to ink & medium by weight to enhance the application on corona treated BOPP film. (38-42dynes/cm.)

- **Shelf Life**

The inks and varnishes of this series have under normal conditions a shelf life of at least 6 months

Normal Conditions means:

- ✓ Storage in tightly closed containers.
- ✓ No admixtures
- ✓ Temperature not exceeding 25⁰C for weeks or 30⁰C for days

Short time excessive-temperatures e.g. at transport are not harmful. The products are not sensitive to frost.

“Over-stored” inks (typical symptoms: fall in gloss, shift in shade, formation of odour and / or viscosity increase) may normally – off color being exceptions - be used the same way as residual inks by controlled admixture to fresh inks.

Increased viscosity due to long-time storage of inks may generally be adjusted by addition of a slightly higher amount of thinner than the usual.

- **Please take note of the following:**

1. 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. HFL, will not take any responsibility for abnormal results
2. Liability: While the information outlined is given in good faith, it does not constitute a guarantee and neither is one implied as to the specific end use suitability of any product. The customers should always evaluate the suitability of products to their own satisfaction
3. HFL is responsible only to the tune of replacing the ink consumed in case of any printing related problems clearly assigned to in-compatibility

- **Remark**

Not recommended for surface printing application.
For ARSR properties, kindly inform our technical team.

- **Health and Safety**

Read the health and safety guidelines before using these products. The user is responsible for all local legislation requirement and packaging conditions

- **Ink Handling**

Please refer to general guideline for handling inks for flexible packaging

For further information, please contact-

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