



Innovation Through Technology

Technical Information

Esterflex Inks

- **Description**

Esterflex Inks are highly pigmented and low viscosity Flexo as well as Gravure (Common) Inks for both reverse and surface Printing applications (the later application only after adding HFL Slip & Scuff Additive, Code No. HFL-2307-02 on Surface Printing) with solvent Balance optimized to give best results at high press speeds due to its excellent chemistry management. Due to its excellent technical properties, Esterflex inks are suitable for all kind of packing structures (e.g. all kind of sealing as horizontal, vertical, Lap) Esterflex Inks are free from banned solvents (like Toluene and MEK) and are exclusively formulated with high Molecular weight, non-migrating plasticizing resins.

Esterflex Series is tailored to run effortlessly on High Speed CI Flexo Presses as well as on Flexo Stack Presses. These inks perform equally well when employed on Gravure printing machines also. These inks are originally designed as very highly pigmented – suitable for fast running CI Flexo presses with very fine anilox rollers. These inks could be easily converted to Gravure Printing application by appropriately diluting with solvents and extender medium – this in-house dilution for Gravure printing not only provides common ink advantage, but also saves a chunk of cost in terms of transport / logistics and preliminary margins of supplier.

- **Application**

Very low odor and solvent retention characteristics make this ink system eminently suitable for the packaging of food products such as coffee, biscuits, snack foods, confectionery carry bags, bread bags, shopping bags, snack food and frozen food packaging etc.

- **Print Process**

Gravure, CI Flexo, Flexo Stack Press

- **Print Substrates**

Chemically coated Polyester, treated BOPP (38-42 dynes/cm), Pearlized BOPP

- **Lamination**

Suitable for solvent base / solvent-less adhesives.

- **Key Product Features**

- ✓ High productivity due to higher press speeds than conventional inks
- ✓ Very low skin formation observed during printing
- ✓ High color strength inks resulting in better coverage than conventional inks.
- ✓ Excellent bond.
- ✓ Lower inventory because of common ink
- ✓ Suitable for food packaging
- ✓ Extremely low solvent retention/ low odor
- ✓ Excellent reproduction of halftone images even at high speeds
- ✓ Clean and sharp images

- **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 and process printing. **To achieve good Dot-Reproduction in below 7 % dot areas, Use Extra Retarder**

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

Accelerator:- Ethyl Alcohol(For Flexo) ,Ethyl Acetate(For gravure)

Medium:- N-Propyl Acetate

Slow:- N-Propanol

Retarder:- Methoxy Propanol, Ethoxy Propanol, Dowanol PM

- **Reducing System**

Reducers For Flexo

N-Propyl Alcohol : N-Propyl Acetate : Dowanol PM :: 70:20:10

Ethyl Alcohol (99%) Pure : N-Propyl Acetate : Dowanol-PM :: 70:20:10

N-Propyl Alcohol : N-Propyl Acetate :: 80:20

Ethyl Alcohol (99%) Pure : N-Propyl Acetate :: 80:20

Reducers For Gravure

Ethyl Alcohol (99%) Pure : Ethyl Acetate :: 50:50

Ethyl Acetate : Ethyl Alcohol (99%) Pure :: 70:30

Ethyl Acetate : N-Propyl Alcohol :: 70:30

Ethyl Acetate : Iso-Propyl Alcohol :: 50:50

NOTE – Please mix the solvents before adding to the ink.

- **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.

- **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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