

A woman in a white leotard is captured in a dynamic, mid-air pose, possibly a ballet move. She is positioned on the left side of the frame, with her arms extended and one leg raised. The background is a vibrant, abstract composition of colorful, flowing light trails in shades of red, orange, yellow, green, and blue, creating a sense of motion and energy. The overall aesthetic is modern and artistic.

# ***LIBRA*** *Technology*

balance, harmony, stability

***Flint***Group

# LIBRA Technology - Product Development

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- ❑ Utilise Flint Group's **Unique** capabilities as an innovative global manufacturer of both founts and inks
- ❑ Instigate **technical cross development** that will support our differentiation in the market
- ❑ Formulate a fount and ink system to **optimise interaction** on press, enhancing performance to reduce substrate wastage with **zero IPA**
- ❑ Dramatically improve the **process stability** when printing IPA free
- ❑ **OEM approval** and full compatibility with CtP plates is essential

# LIBRA Technology - Product Development

## ❑ Cross Functional Capabilities

- Ink and Fount experts working together
- Combining years of experience
- Approaching IPA free printing as a team

## ❑ Laboratory Testing

- Numerous combinations of experimental ink and fount formulations
- Main criteria for evaluation
  - Reduced damp level
  - Reduced Picture Framing
  - Reduced misting
  - Minimised substrate waste
  - Optimised press performance



# LIBRA Technology - Field Trials

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❑ Following extensive field trials throughout Europe, the press minders commented that LIBRA Technology delivered:

- **Stable** printing conditions
- First-class ink/water **balance**
- **Improved picture framing**
- **Good ink flow** characteristics
- **Vibrant/brilliant** colours
- Fine **optical density**
- **Clean** backgrounds
- Excellent colour **balance**
- **Clean** open screens
- **Improved** wash intervals – **less wastage**
- **Less ink piling**

# LIBRA Technology Delivers...

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## ❑ Cost savings

- IPA elimination
- Substrate waste reduction

## ❑ Environmental benefits

- No IPA
- Lower VOCs
- Reduced Carbon Footprint
- Less packaging
- Reduction of waste disposal
- Healthier working conditions



# LIBRA Technology Delivers...

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## ❑ Technical benefits

- Optimum press performance
- Dramatically reduced picture framing
- Minimised misting
- Lower damp level with zero IPA
  - 56% water feed compared to 86% with standard ink (Flint Group tests)
- OEM approved formulation of the fount

## ❑ Process Quality

- Stable IPA-free printing

# Technical Product Literature

## Standard Applications



**Novavit® F 940 LIBRA PLUS BIO**  
The fast ink set for IPA free printing

**K+E® standard process inks for sheetfed offset**

**Product Features**

- Novavit F 940 LIBRA PLUS BIO is a dual head ink system, based on innovative ink vehicles with high color strength and fast setting on materials.
- Novavit F 940 LIBRA PLUS BIO is primarily suited for fast setting, multi-color printing processes, for straight line printing as well as for packaging process.
- Novavit F 940 LIBRA PLUS BIO is designed to work in harmony with Varn® Libra Fount. This new technology allows excellent results without the need for UV. Together, Novavit F 940 LIBRA PLUS BIO and Varn® Libra Fount dramatically increase the process stability when printing IPA free.
- The combination of Novavit F 940 LIBRA PLUS BIO and Varn® Libra Fount enables optimum ink transfer behavior to be achieved with reduced drying and high process stability in IPA free applications.
- In high speed sheetfed process where print run bearing is a common problem, the Libra technology can dramatically reduce ink migration to the substrate.

**Advantages of Novavit F 940 LIBRA PLUS BIO**

- IPA free application.
- Low heat setting.
- Drastically reduces ink migration problem bearing.
- High process stability.
- Reduced ink migration.
- Direct ink identification.
- Highly suitable for glass and metal coated papers.

**K+E** **FlintGroup**



**Varn® Libra Fount**  
Advanced IPA etched/inked fast-dry fountain solution

**Suitable for all commercial sheetfed presses**

**Product Features**

- Varn® Libra Fount is a state-of-the-art fountain solution optimized for efficient IPA free printing.
- Detergency levels can be significantly reduced even when printing IPA free.
- Excellent emulsification is enabled to be achieved via better balance, providing the printer with a wide window of operation.
- Varn® Libra Fount meets the stringent customer requirements of press manufacturers.
- Varn® Libra Fount is designed to work in harmony with Novavit F 940 LIBRA PLUS BIO. This new technology allows excellent results without the need for UV. Together, Varn® Libra Fount and Novavit F 940 LIBRA PLUS BIO dramatically increase the process stability when printing IPA free.
- The combination of Varn® Libra Fount and Novavit F 940 LIBRA PLUS BIO enables optimum ink transfer behavior to be achieved with reduced drying and high process stability in IPA free applications.
- In high speed sheetfed process where print run bearing is a common problem, the Libra technology can dramatically reduce ink migration to the substrate.

**Advantages of Varn® Libra Fount**

- Stable IPA free printing.
- Optimized ink water balance.
- Low sump level - limited water addition.
- Excellent emulsification.
- Drastically reduces ink migration problem bearing.
- Lower ink loading in high speed presses.
- Ready for setting.
- SEM approved.

**FlintGroup**

## Low Migration Applications



**Novasens® P 670 LIBRA PREMIUM**  
The low migration and extremely low volume ink set for IPA free printing

**Special process inks for sheetfed offset**

**Product Features**

- Novasens P 670 LIBRA PREMIUM is a advanced, low-migration and low-volume special process ink which has been specifically developed for sensitive food and pharmaceutical packaging applications, where there is a clear demand between the product range and the content of the package.
- Novasens P 670 LIBRA PREMIUM is designed to work in harmony with Varn® Libra Fount LM. This new technology allows excellent results without the need for UV. Together, Novasens P 670 LIBRA PREMIUM and Varn® Libra Fount LM dramatically increase the process stability when printing IPA free.
- In high speed sheetfed process where print run bearing is a common problem, the Libra technology can dramatically reduce ink migration to the substrate.
- Novasens P 670 LIBRA PREMIUM is a specialized ink for the production of packaging that complies with the requirements of the European LVD (2006) and CE (2004) as well as the RoHS (2002) and REACH (2007) regulations. It is not suitable for use in high speed printing applications of the same type. The absence of phthalates in original substances is below the detection limit.

**Advantages of Novasens P 670 LIBRA PREMIUM**

- IPA free application.
- Low migration and extremely low volume.
- Drastically reduces ink migration problem bearing.
- High process stability.
- The ink is compatible with the requirements for printing inks for food packaging.
- Low loading.
- Good performance in the sump.
- Highly suitable for glass coated papers and boards.

**FlintGroup**



**Varn® Libra Fount LM**  
Advanced IPA etched/inked, low migration fast-dry fountain solution

**Suitable for all packaging sheetfed presses**

**Product Features**

- Varn® Libra Fount LM is a state-of-the-art fountain solution optimized for efficient IPA free printing where low migration is a priority.
- Detergency levels can be significantly reduced even when printing IPA free.
- Excellent emulsification is enabled to be achieved via better balance, providing the printer with a wide window of operation.
- Varn® Libra Fount LM meets the stringent customer requirements of press manufacturers.
- Varn® Libra Fount LM is designed to work in harmony with Novasens P 670 LIBRA PREMIUM. This new technology allows excellent results without the need for UV. Together, Varn® Libra Fount LM and Novasens P 670 LIBRA PREMIUM dramatically increase the process stability when printing IPA free.
- The combination of Varn® Libra Fount LM and Novasens P 670 LIBRA PREMIUM enables optimum ink transfer behavior to be achieved with reduced drying and high process stability in IPA free applications.
- In high speed sheetfed process where print run bearing is a common problem, the Libra technology can dramatically reduce ink migration to the substrate.

**Advantages of Varn® Libra Fount LM**

- Stable IPA free printing.
- Low migration properties.
- Optimized ink water balance.
- Low sump level - limited water addition.
- Excellent emulsification.
- Drastically reduces ink migration problem bearing.
- Lower ink loading in high speed presses.
- Ready for setting.
- SEM approved.
- REACH substances available on demand.

**FlintGroup**

# Frequently Asked Questions

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## **I am a food packaging printer, can you offer Libra Low Migration Inks and Founts?**

Yes! We have developed Novasens P 670 LIBRA PREMIUM an extremely low odour, low migration series that benefits from the superb Novasens low migration technology. Together with Varn Libra Fount LM these products offer good printability, no IPA and low migration.

## **Can you offer Libra spot colours?**

Yes, Libra spot colours made from conventional and low migration bases are available.

## **Can I mix my own Libra spot colours?**

At present we do not plan to offer a formulation that will allow printers to mix their own Libra Spot colours\*.

There are two possibilities to obtain Libra spot colours:

- 1) You could be supplied directly from a Flint Group mixing station
- 2) Or you could be supplied by one of our exclusive dealer representatives for Flint Group inks.

\*In some cases we may consider supplying a customer's own ink mixing station with a special Libra Paste. However, a Non Disclosure Agreement must first be signed before this is possible.





***Rely on us.***

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***Flint**Group*