



PVC and Phthalate free plastisol ink designed
for printing onto natural and synthetic fabrics



FREE

*«To be what you've never been, to get what you've never got,
you must believe you can do what you've never done»*

(S. M. R. Covey)



FREE INKS TO WEAR

A stylized, colorful fish logo with intricate patterns in blue, green, orange, and white, positioned between the words 'FREE' and 'INKS'.

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- Textile Printing Inks: state-of-the-art
- Environmental Standards in Textile Printing
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Textile printing inks: state of the art

The printing inks used for the decoration of pre-cut textile articles belong essentially to one of the following families:

PLASTISOL

Excellent printability as they will not dry on the screen at room temperature, resulting in high productivity without the necessity to stop the printing machine; suitable for a wide range of fabrics

Conform to the most stringent ecological textile standards and specifications; very soft touch and broad range of special effects

WATER BASED

SILICONE

Eco-friendly, with a high elasticity and strong adhesion on synthetic fabrics for sports- and swimwear

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Environmental standards in textile printing

The global textile industry has increasingly responded to the demand for the use of chemicals which take into account environmental, health and sustainability issues related to the production and use of textiles.

Besides generally accepted industry norms such as OEKO-TEX and GOTS some leading brand owners (Nike, Inditex) have introduced their own specifications, restricting the use of specific chemical substances such as formaldehyde and PVC

Furthermore there are voluntary industry initiatives, such as the «Zero Discharge of Hazardous Chemicals», driving the push for chemicals with a reduced environmental impact

Today's challenge is to continuously improve quality and sustainability, protecting both workers' and consumers' rights.



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The solution: FREE

ECOLOGY

FREE contains neither PVC nor forbidden Phthalates and other harmful substances, and meets the most stringent textile standards

PERFORMANCE

Printability, stability and productivity are at least as good as traditional plastisols, with a superior final aspect

VERSATILITY

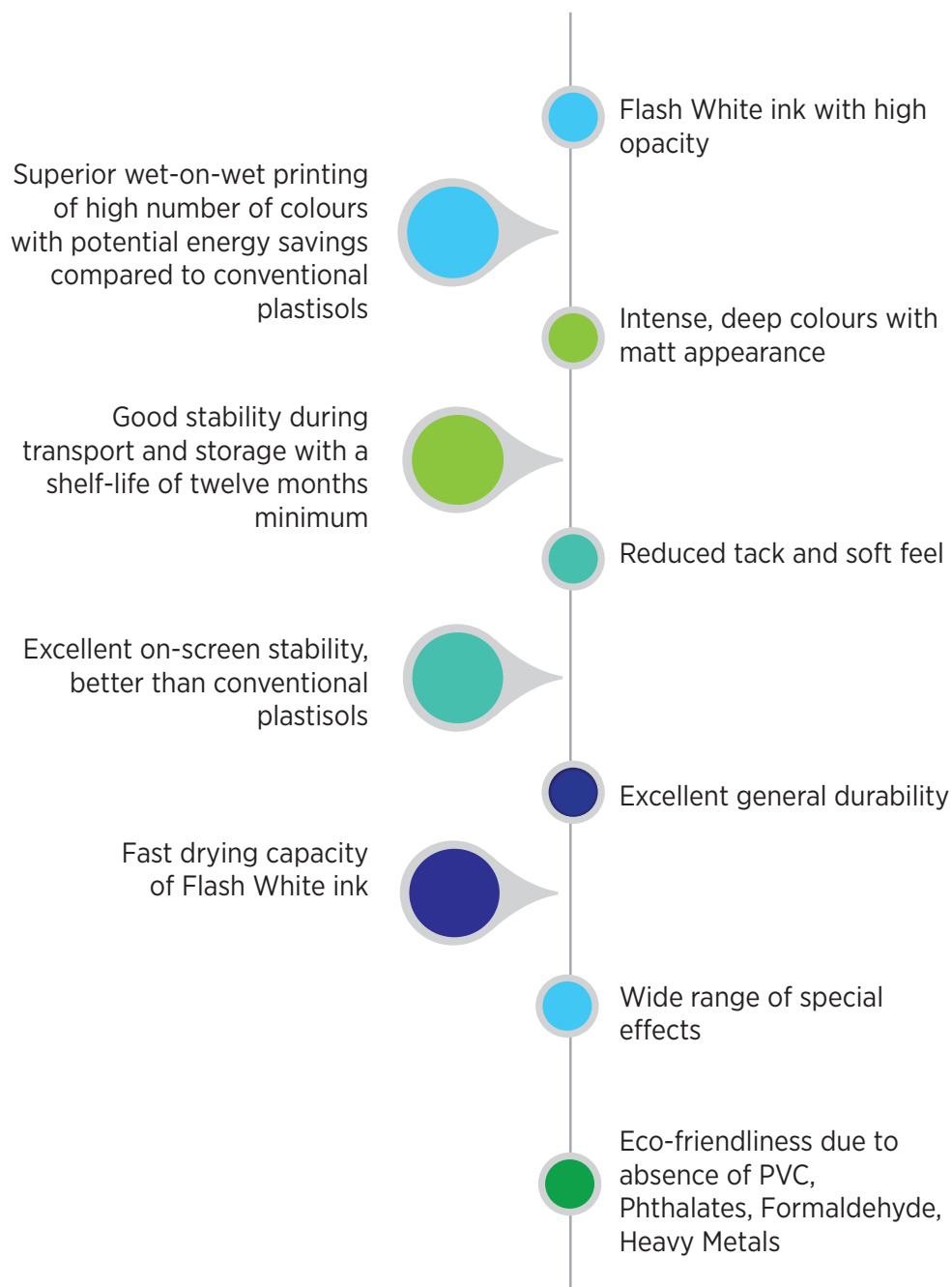
FREE inks are compatible for printing on the vast majority of fabrics used with a limited number of additives

FREE INKS TO WEAR



technical characteristics

Why printing with FREE



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FREE: competitive advantages

The main benefits of FREE:



Wet-on-Wet printability. Superior to conventional plastisols, as a higher number of colours can be printed without intermediate drying, resulting in improved production performance and potential energy savings



Stability on the Screen. FREE will not dry on the screen, which results in significant less downtime for screen cleaning and machine set-up, with consequent cost savings. High production speeds can be maintained during the whole cycle, achieving the maximum levels of efficiency



Innovative formulation. FREE combines the processing characteristics of traditional plastisols with the typical benefits of printing with water-based inks, without compromising industrial productivity and final print results



The ecological profile. FREE is the real alternative to conventional plastisol printing and the fulfilling of the demand for the elimination of PVC from printing inks

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FREE and the textile standards

FREE is conform to the major international health, safety and ecological textile standards:



Standard 100



Detailed information and certificates can be obtained on specific request from our Safety, Health, Environment & Quality (SHEQ) Department.

The requests can be addressed directly to: safety@kilian.com

FREE LINKS TO WEAR



FREE: product range



FREE FLASH WHITE

When?

For printing of a white background on dark fabrics

How?

Printable with screen mesh up to 90 Th/cm

Why?

- High opacity
- Excellent printability
- High stability on screen
- Fast drying speed under IR lamps
- No tack and soft hand



FREE TRANSPARENT

When?

For printing of transparent effects, glitter and metal powders

How?

Printable with screen mesh up to 120 Th/cm

Why?

- Very transparent
- High stability on screen
- No tack and soft hand

FREE INKS TO WEAR



FREE: product range



FREE STANDARD COLOURS

Ready-to-use semi-opaque ink series

When?

For the production of colour designs

How?

Printable with screen mesh up to 120 Th/cm

Why?

- To obtain prints with bright colours, a soft hand and a matt aspect
- Exceptional manufacturing efficiency due to the outstanding wet-on-wet printability up to six colours
- Ease of colour matching thanks to the Matching System software package



FREE OP

Range of ready-to-use high opacity inks

When?

For the production of colour designs on dark fabric without the use of a white background

How?

Printable with screen mesh up to 120 Th/cm

Why?

- To obtain bright colour prints on dark fabric with a soft hand
- Excellent wet-on-wet printability

FREE INKS TO WEAR



FREE: product range



FREE FLUO

Range of fluorescent inks, ready-to-use

When?

For the production of designs with fluorescent colours

How?

Printable with screen mesh up to 77 Th/cm

Why?

- To obtain prints with brilliant colours



FREE PROCESS

Series of transparent colours for the four colour printing process

When?

Production of prints in quadrichromia

How?

Printable with screen mesh up to 120 Th/cm

Why?

- High dot definition
- Excellent wet-on-wet printability

FREE INKS TO WEAR



FREE: product range



FREE ANTI-BLEEDING GREY

Ready-to-use ink

When?

For printing the first background layer on coloured fabrics which are sensitive to bleeding

How?

Printable with screen mesh up to 43 Th/cm

Why?

- Fast drying under IR lamps
- Very low tack



FREE TRANSFER BASE

Ready-to-use
adhesive ink

When?

For the production of transfers, either direct or indirect

How?

Printable with screen mesh up to 43 Th/cm

Why?

- Excellent definition and adhesion
- Good printability

FREE INKS TO WEAR



FREE: product range



FREE 3D
TRANSPARENT
Ready-to-use ink

When?

For the printing of high thickness effects

How?

Printable with screen mesh up to 55 Th/cm

Why?

- Excellent transparency and brightness
- Good build-up of the thickness

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FREE: APPLICATIONS

100% COTTON			
Fabric Colour	Background	Colours	Result
White	Not necessary	Up to 120th/cm. Possibly add up to 5% FREE THINNER	Soft hand. Prints with good soft/matt effect
Coloured light - medium shades	77f/cm. FREE FLASH WHITE	Up to 120th/cm. Possibly add up to 15% FREE QUICK GEL 557 for wet/dry prints	Brilliant colours and soft hand
Black and dark shades	55f/cm. FREE FLASH WHITE	Up to 120th/cm. Possibly add up to 15% FREE QUICK GEL 557 per wet/dry prints	More heavy hand

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FREE: APPLICATIONS

MIXED AND SYNTHETIC FABRICS				
Fabric Colour	Anti-bleeding base	Background	Colours	Result
White	Not necessary	Not necessary	Up to 120th/cm. Possibly add up to 5% FREE THINNER	Soft hand. Prints with good soft/matt effect
Coloured light-medium shades excluding reds	For coloured overprints: 55 th/cm	77f/cm. FREE FLASH WHITE	Up to 120th/cm. Possibly add up to 15% FREE QUICK GEL 557 for wet/dry prints	Lower softness of hand
	For overprints with white finish: 43 th/cm	55f/cm FREE FLASH WHITE	No	Lower softness of hand. Good degree of whiteness
Black, dark shades and red colour tones	For coloured overprints: 43 th/cm	62f/cm. FREE FLASH WHITE	Up to 120th/cm. Possibly add up to 15% FREE QUICK GEL 557 for wet/dry prints	More heavy hand
	For overprints with white finish: 43 th/cm	55f/cm FREE FLASH WHITE	No	More heavy hand. Good degree of whiteness

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FREE: APPLICATIONS

SPECIAL EFFECTS			
Application	f/cm	Polimerisation	Result
GLITTER	Check the threads number according to the glitter size	150°-160°C for 3 minutes	Excellent transparency, low yellowing
GLOSSY OVERPRINTS	55 f/cm	150°-160°C for 3 minutes	Good gloss effect. The gloss effect may be increased through a hot stamp passage using siliconated or enameled paper, or glossy polyester film



INKS TO WEAR

In line with the various on-going initiatives of the global textile industry to work towards a set of ambitious targets in terms of ecological impact, sustainability, social responsibility and consumer awareness, Kiian Specialty Inks has decided to implement its own system reflecting the same values: **INKS TO WEAR**.

The **INKS TO WEAR** principles effect all the functions of the organization that are concerned with textile printing, including Research & Development, Sourcing, Manufacturing, HSE, Sales and Technical Service. From the choice of raw materials and suppliers, through the manufacturing process and including customer service and support, our people and procedures are driven by the same principles.

The **INKS TO WEAR** philosophy finds its maximum expression in the new generation of products marketed around the world under the MANOUKIAN-ARGON brand name. They are specifically designed to improve the workplace quality for printers, reduce the environmental and energy impact, and offer tangible benefits for brand owners, fashion retailers and final consumers in terms of product performance.

As a manufacturer of printing inks and related products, Kiian Specialty Inks considers itself an integral part of the global textile supply chain and as a consequence intends to behave and perform conform the ambitious objectives the industry has set for itself.



EPTA INKS

Epta Inks is an international supplier of high quality printing inks, screen chemicals and related products. The company develops, produces and markets a complete range of standard and special products for flat and rotary screen printing, pad printing, transfer printing, sublimation printing and specific gravure and off-set processes for its core industrial and textile markets.

The company is based in Italy where the main R&D and manufacturing facilities are located. Other production and technical support centers are located in Spain and China. Through a global network of subsidiaries, distributors and agents our products and services are available to printers around the world using three well-known brands: MANOUKIAN-ARGON, KFG and VISPROX, each with its distinct product range and identity.

Our organization and people are driven by our vision to be a leading supplier of sustainable, high quality products and solutions for our customers in selected market segments. Innovation, global reach and uniqueness are the pillars on which our business is built.



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