



**FREE**

**PVC AND PHTHALATE FREE  
PLASTISOL INK**

**EPTA**INKS



FREE

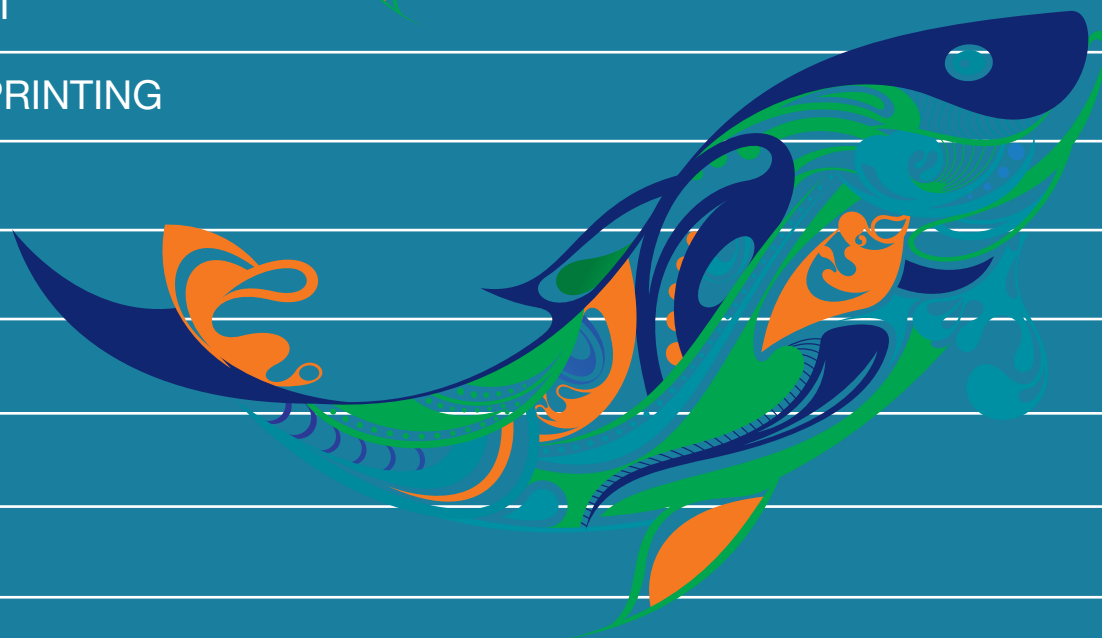
INKS TO WEAR

## TOPICS

- TEXTILE PRINTING INKS: STATE-OF-THE-ART
- ENVIRONMENTAL STANDARDS IN TEXTILE PRINTING
- THE SOLUTION: FREE
- PRODUCT CHARACTERISTICS
- BENEFITS AND COMPETITIVE ADVANTAGE
- PRODUCT CERTIFICATIONS
- PRODUCT RANGE
- APPLICATIONS



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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



**WATER  
BASED**

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



**SILICONE**

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



## 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



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# TECHNICAL CHARACTERISTICS

## WHY PRINTING WITH FREE?

Superior wet-on-wet printing  
of high number of colours  
with potential energy  
savings compared  
to conventional plastisols



Good stability during transport  
and storage with a shelf-life of  
twelve months minimum



Excellent on-screen stability,  
better than conventional plastisols



Fast drying capacity  
of Flash White ink



Flash White ink with high opacity



Intense, deep colours with matt appearance



Reduced tack and soft feel



Excellent general durability



Wide range of special effects



Eco-friendliness due to absence of PVC, Phthalates,  
Formaldehyde, Heavy Metals



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## FREE: BENEFITS AND 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@eptainks.com](mailto:safety@eptainks.com)





# FREE

## INKS TO WEAR

### FREE: PRODUCT RANGE

#### ○ FREE FLASH WHITE

##### WHERE?

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 STANDARD COLOURS

Ready-to-use semi-opaque ink series

##### WHERE?

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 TRANSPARENT

##### WHERE?

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 OP

Range of ready-to-use high opacity inks

##### WHERE?

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



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## INKS TO WEAR

### FREE: PRODUCT RANGE



#### FREE FLUO

Range of fluorescent inks, ready-to-use

##### WHERE?

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 ANTI-BLEEDING GREY

Ready-to-use ink

##### WHERE?

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 PROCESS

Series of transparent colours for the four colour printing process

##### WHERE?

Production of four-colour process prints

##### HOW?

Printable with screen mesh up to 120 Th/cm

##### WHY?

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



#### FREE 3D TRANSPARENT

Ready-to-use ink

##### WHERE?

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: PRODUCT RANGE



### FREE TRANSFER BASE

Ready-to-use adhesive ink

#### WHERE?

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



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### FREE: APPLICATIONS

#### 100% COTTON

FABRIC COLOUR	BACKGROUND	COLOURS	RESULT
White	Not needed	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 for wet/dry prints	More heavy hand



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## INKS TO WEAR

# FREE: APPLICATIONS

## MIXED AND SYNTHETIC FABRICS

FABRIC COLOUR	ANTI BLEEDING BASE	BACKGROUND	COLOURS	RESULT
White	Not needed	Not needed	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	Heavier hand
	For overprints with white finish: 43 th/cm	55f/cm FREE FLASH WHITE	NO	Heavier hand. Good degree of whiteness



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# FREE: APPLICATIONS

## SPECIAL EFFECTS

APPLICATION	TH/CM	CURING	RESULT
GLITTER	Check the threads number according to the glitter size	150°-160°C for 3 minutes	Excellent transparency, low yellowing
GLOSSY OVERPRINTS	55 Th/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



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## 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, Epta 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, Epta 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.





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## 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.



# EPTAINKS

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## **BE NATURAL, BE FREE!**

Every two seconds a forest area - sizing a football field - is destroyed!

We believe in developing a Sustainable Chemistry as we believe that the respect for the environment is part of our responsibility. With a few simple, everyday efforts you can help us to reduce pollution, consume less energy and water and produce less waste:

- Download our brochures from our website
- Spread the information to your customers through internet and @mail
- Print brochures only if really necessary choosing Recycled Paper.

**Do like us: BE NATURAL, BE FREE**