

# **TOPICS**

WHY PRINTING WITH SILICONE INKS

SILICONE INK FEATURES

STRONG POINTS

ADVANTAGES FOR THE ENVIRONMENT

**TEXISIL RANGE** 

**TEXISIL AUXILIARES** 

USUAL INCONVENIENTS AND THEIR SOLUTION



# WHY PRINTING WITH SILICONE INKS

- They enable to achieve prints complying with the most severe restrictions in terms of ECOLOGY and SAFETY FOR THE USERS
- They enable to achieve PRINTS WHICH ARE PVC, PHTHALATE AND FORMALDEHYDE FREE
- They allow to achieve EXTREMELY ELASTIC PRINTS
- They allow to achieve PRINTS FOR SPORTSWEAR
- They allow to achieve SPECIAL EFFECTS PRINTS
- They make printing possible onto such substrates, being sensitive to HIGH TEMPERATURES

### SILICONE INKS FEATURES

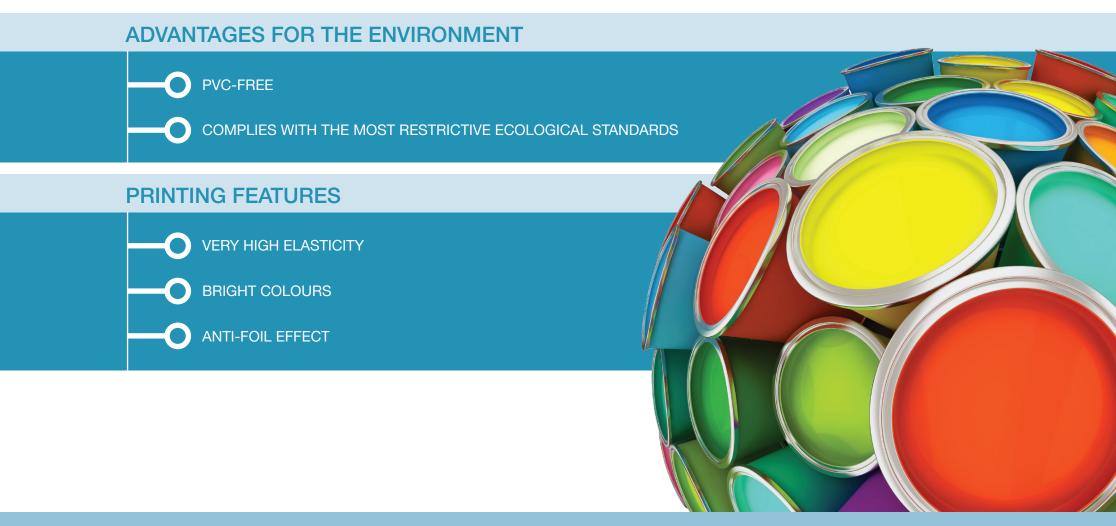
Silicone inks are BI-COMPONENT products for Pigment Screen Printing.

The term BI-COMPONENT means that such inks need a specific catalysts to be cured; otherwise, the process cannot occur.

The special feature of Silicone inks is that they do not dry at room temperature, like plastisol inks and unlike water-based ones.



# **STRONG POINTS**





# **ADVANTAGES FOR THE ENVIRONMENT**

### **OEKO-TEX®**

A free certification system, which is "worldwide" recognized by the international textile world, examinating the production cycle for the manufacturing of the article in its wholeness: from raw materials to finished products during all processing phases. The certification system applies to all textile products and toys made of fabric.

#### OEKO-TEX®: THE WORLD WIDE TEXTILE STANDARD.

The certification system applies to:

- 1. FINISHED GARMENT: Oeko-Tex® Standard 100
- 2. PROCESS AND PRODUCTION SITES: Oeko-Tex® Standard 1000
- 3. BOTH: Oeko-Tex® Standard 100 Plus

CERTIFICATIONS ARE ALWAYS AND EXCLUSIVELY REFERRED TO THE ARTICLE. IT IS NOT POSSIBLE TO CERTIFY SUBSTANCES OR PREPARATIONS





### ADVANTAGES FOR THE ENVIRONMENT

### **OEKO-TEX®: APPLICATION FIELDS & NORM SPECIFICATIONS**

The Oeko-Tex® Standard 100 refers to articles and states that: the more a finished garment is in contact with the skin – considering its sensitivity –, the more restrictive are the limits imposed by the standard. The classes listed in the Regulations are four, like the threshold values of interest:

#### CLASS I

To this class belong textiles and textile toys designed for children up to 3 years. Some articles included in this class are: underwear and bed linen, rag dolls and so on.

#### **CLASS II**

To this class belong textile products having a large part of their surface in direct contact with the skin; they are designed for children above 3 years as well as for adults. Some articles included in this class are: underwear and bed linen, towelling articles in direct contact with the skin and wearing apparel such as T-Shirt and shirts.

#### CLASS III

To this class belong textile products that are not in direct contact with the skin or are in contact with a small area, such as coats and jackets.

#### **CLASS IV**

To this class belong textile products designed for Interior Decoration such as wall paper, furnishing fabric, table linen, carpets and wall coverings.



CATALYST FOR AUTOMATIC PRINTING

CATALYST FOR MANUAL PRINTING

**TEXISIL CATALYST** 

**TEXISIL CATALYST SUPER FAST** 

TRANSPARENT	WHITE	BASES	FASHION EFFECTS	PIGMENTS
TEXISIL CLEAR BASE	TEXISIL WHITE EXTRA	TEXISIL OPAQUE BASE	TEXISIL PUFF BASE	TEXISIL PIGMENT
	TEXISIL WHITE 3D	TEXISIL OPAQUE MATT BASE		
	TEXISIL MATT WHITE			
LIGHT FABRIC	DARK FABRIC			



### **TEXISIL CATALYST**

- O CATALYST FOR TEXISIL SERIES
- USE PERCENTAGE = 7-10%
- POT LIFE (MIXTURE) = 8 HOURS
- CURING CONDITIONS (MIXTURE) = 130°C FOR 3 MIN.
- INDICATED FOR AUTOMATIC PRINTING

INKS	TEXISIL CATALYST	
TEXISIL CLEAR BASE	+ 10%	
TEXISIL WHITE EXTRA	+ 7%	
TEXISIL WHITE 3D	+ 7%	
TEXISIL MATT WHITE	+ 7%	
TEXISIL OPAQUE BASE	+ 7%	
TEXISIL OPAQUE MATT BASE	+ 7%	
TEXISIL PUFF BASE	+ 7%	

### **TEXISIL CATALYST SUPER FAST**

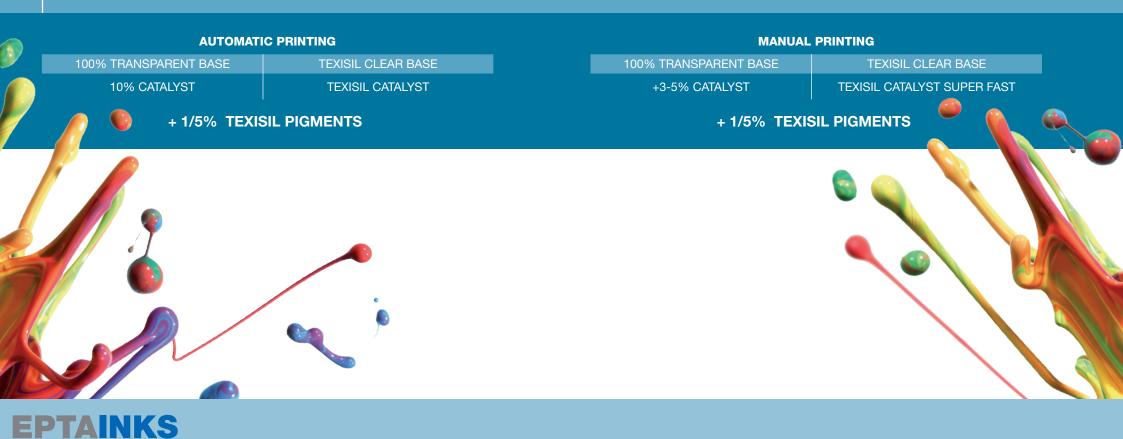
- O CATALYST FOR TEXISIL SERIES
- USE PERCENTAGE = 3-5%
- POT LIFE (MIXTURE) = 3 HOURS (maximum)
- O CURING CONDITIONS (MIXTURE) = 90°C FOR 2-3 MIN.
- INDICATED FOR MANUAL PRINTING





#### **TEXISIL CLEAR BASE**

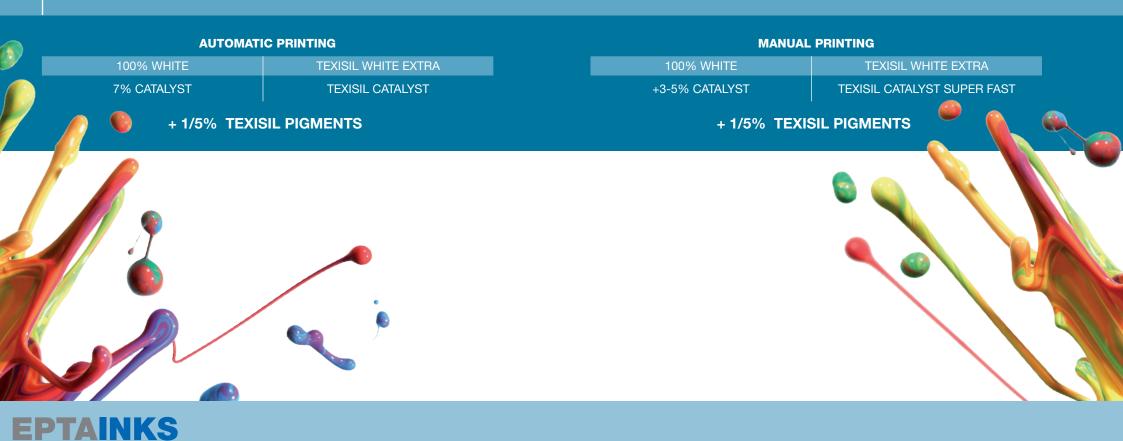
- INK FOR LIGHT SUBSTRATES
- HIGH ELASTICITY
- PRINTABLE WITH MESH UP TO 77 Th/cm (195 Th/inch)
- -O ANTI-FOIL EFFECT
- INDICATED AS A BINDER FOR POWDERS & GLITTERS
- IINDICATED FOR 3D EFFECTS





#### **TEXISIL WHITE EXTRA**

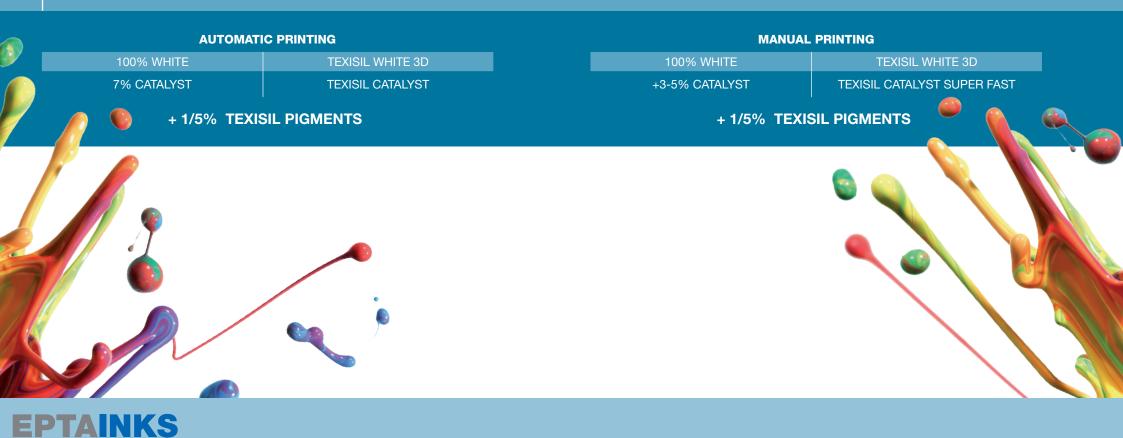
- O WHITE INK TO PRINT ON DARK SUBSTRATES
- HIGH ELASTICITY
- PRINTABLE WITH MESH UP TO 77 Th/cm (195 Th/inch)
  - -O ANTI-FOIL EFFECT
  - HIGH OPACITY





#### **TEXISIL WHITE 3D**

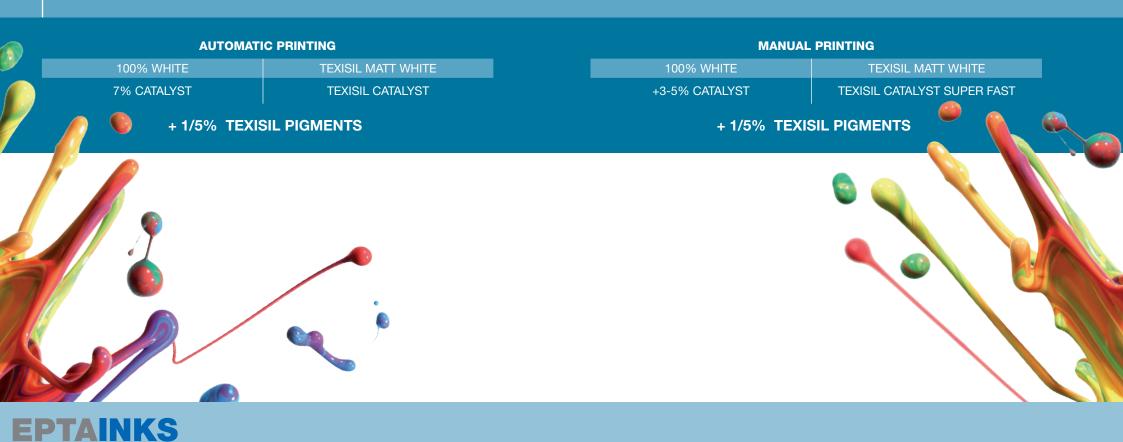
- O WHITE INK FOR PRINTING ONTO DARK SUBSTRATES
- HIGH ELASTICITY
- PRINTABLE WITH MESH UP TO 77 Th/cm (195 Th/inch)
- -O ANTI-FOIL EFFECT
- INDICATED FOR 3D EFFECTS





#### **TEXISIL MATT WHITE**

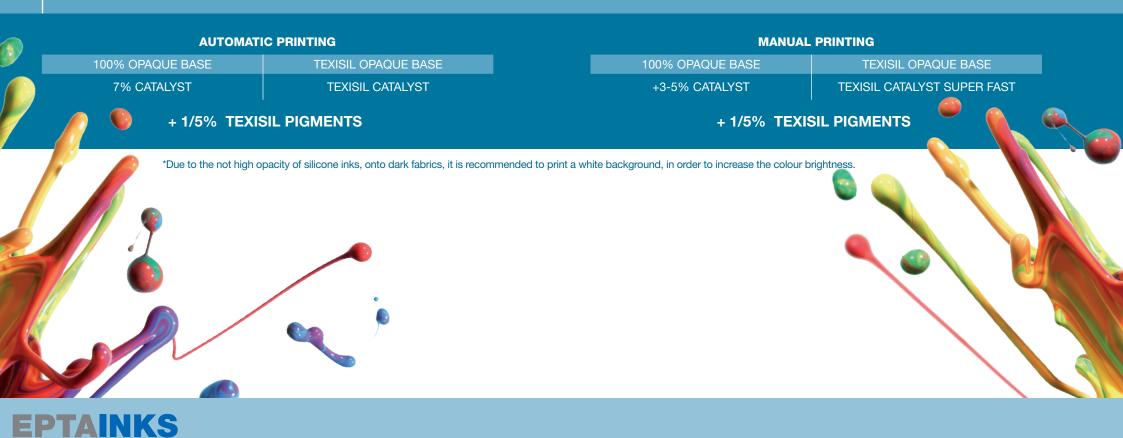
- WHITE INK FOR PRINTING ONTO DARK SUBSTRATES
- HIGH ELASTICITY
- PRINTABLE WITH MESH UP TO 77 Th/cm (195 Th/inch)
  - -O ANTI-FOIL EFFECT
- HIGH MATT LEVEL





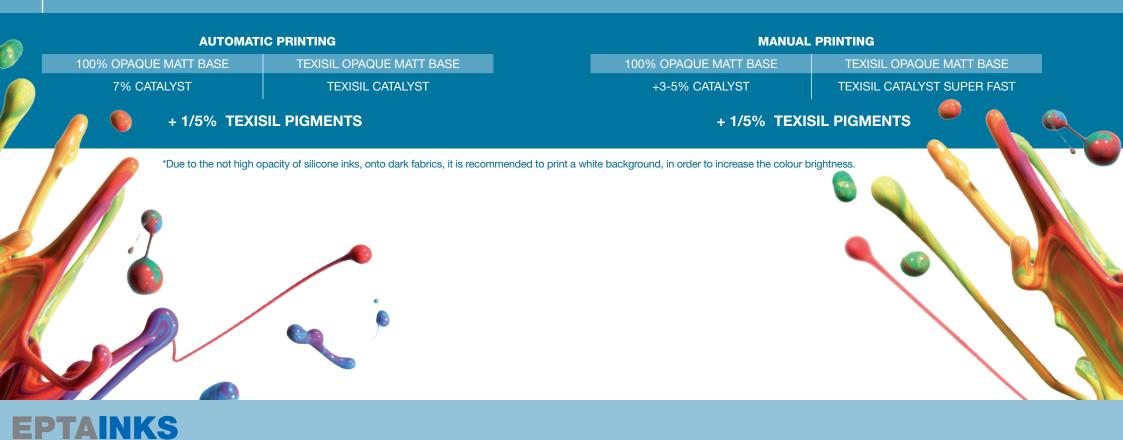
### **TEXISIL OPAQUE BASE**

- INK FOR LIGHT SUBSTRATES
- HIGH ELASTICITY
- PRINTABLE WITH MESH UP TO 77 Th/cm (195 Th/inch)
- -O ANTI-FOIL EFFECT
- QUITE GOOD OPACITY\*



### **TEXISIL OPAQUE MATT BASE**

- O INK FOR PRINTING ONTO DARK SUBSTRATES
- HIGH ELASTICITY
- PRINTABLE WITH MESH UP TO 77 Th/cm (195 Th/inch)
- -O ANTI-FOIL EFFECT
- HIGH MATT LEVEL
- QUITE GOOD OPACITY\*



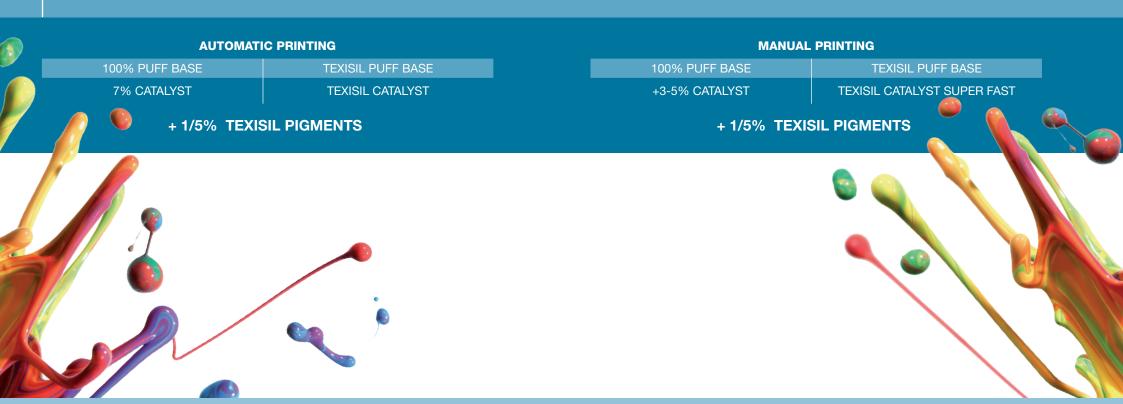


### **TEXISIL PUFF BASE**

- INK FOR PUFF EFFECTS
- HIGH ELASTICITY
- PRINTABLE WITH MESH UP TO 55 Th/cm (125 Th/inch)
- -O ANTI-FOIL EFFECT

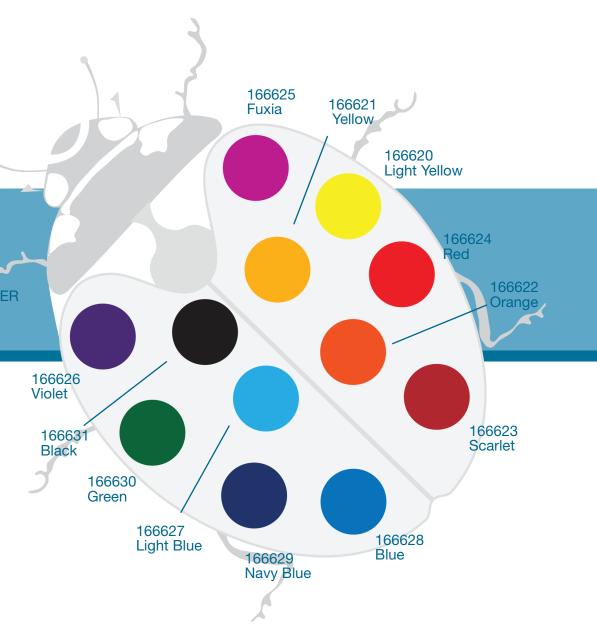
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- PUFF EFFECT WITH SOFT AND VELVETY TOUCH
- GOOD MECHANICAL RESISTANCE



#### **TEXISIL PIGMENTS**

- PIGMENTS FOR TEXISIL SERIES
- USE PERCENTAGE = 1-5%
- GOOD GENERAL FASTNESS
- HIGH CONCENTRATION WITH HIGH COLOURING POWER



### **TEXISIL AUXILIARIES**



#### **TEXISIL THINNER**

- It reduces ink viscosity without compromising the opacity; it is useful for the application of silicone inks when working on multi-colour automatic machines.
- The maximum use percentage is 5%

#### **TEXISIL THINNER FAST**

- It reduces ink viscosity without compromising the opacity; it is useful for the application of silicone inks when working on multi-colour automatic machines. It reduces the intermediate drying times with FLASH lamps.
- The maximum use percentage is 5%

### **USUAL INCONVENIENTS AND THEIR SOLUTION**

#### **BACKGROUND WHITE PRINTING**

### 1. POSSIBLE SLOW FLASH DRYING

Add the following auxiliaries: TEXISIL MATTING AGENT (5-10%) or TEXISIL THINNER FAST (3-5%)

#### 2. HIGH GLOSS OF WHITE BACKGROUND

Add the following auxiliary: TEXISIL MATTING AGENT (5-10%)

#### PROBLEMS ON SYNTHETIC FABRICS

### 1. BLEEDING PROBLEM (WITH TEXISIL CATALYST)

Adjust curing temperature and time conditions at 130°C for 3 minutes

#### HIGH INK VISCOSITY

### 1. HIGH INK VISCOSITY - WHITE BACKGROUND

Add TEXISIL THINNER FAST (2-3%). This auxiliary also reduces the flash drying time

#### 2. HIGH INK VISCOSITY - COLOURS

Add TEXISIL THINNER (2-3%)



### **USUAL INCONVENIENTS AND THEIR SOLUTION**

#### POT LIFE PROBLEMS

#### 1. POSSIBLE POT LIFE REDUCTION

Prepare only the ink quantity needed for few hours Lay small quantity of (already catalyzed) ink onto the screen

#### **OVERPRINT PROBLEMS**

### 1. HIGH GLOSSY OF COLOURED OVERPRINTS

Add the following auxiliary: TEXISIL MATTING AGENT (5-10%)

#### 2. NOT HOMOGENEOUS OVERPRINT COLOURS ON WHITE BACKGROUND

Adjust flash drying time and temperature conditions Adjust the ink deposit

#### POSSIBLE PRINTING PROBLEMS

### 1. BUILD UP OF THE FIRST OVERPRINTED COLOUR ON WHITE BACKGROUND

Leave empty printing stations after the flash lamp in order to allow the pallet cooling In case, use some ventilators on the printing stations

#### 2. HIGH INK VISCOSITY - COLOURS

Add TEXISIL THINNER (2-3%)





### **EPTAINKS**

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- Print brochures only if really necessary choosing Recycled Paper

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