WHY DISCHARGE PRINTING?

PRINTABLE SUBSTRATES

INKS FOR DISCHARGE PRINTING

INK FEATURES

PREPARATION OF THE SCREEN

SPECIAL APPLICATIONS

MOST COMMON INCOVENIENCES AND THEIR SOLUTION
Printing onto light fabrics with transparent inks allows to obtain prints with a very soft final touch. Usually, this is not possible onto dark fabrics, since prints with opaque inks has a rather stiff touch.

The option is DISCHARGE PRINTING
DISCHARGE PRINTING

PRINTING WITH WATER-BASED INKS

LIGHT FABRIC:
- OPAQUE
- SEMI-OPAQUE
- TRANSPARENT

DARK FABRIC:
- OPAQUE
- WHITE BACKGROUND + SEMI-OPAQUE
- WHITE BACKGROUND + TRANSPARENT
- DISCHARGE PRINTING
DISCHARGE PRINTING

STRONG POINTS OF DISCHARGE PRINTING

- HIGHEST OPACITY ONTO DARK BACKGROUND
- EXTREMELY SOFT TOUCH
- VERY BRIGHT COLOURS
- ANTI-FOIL EFFECT
DISCHARGE PRINTING

PRINTABLE SUBSTRATES

DISCHARGE PRINTING MAY USUALLY TAKE PLACE ONTO DARK COLOURED FABRICS DYED THROUGH THE SO CALLED “DISCHARGEABLE” DYES

The dyestuff in the dye (background) is destroyed by special reducers, leaving in that way white (coloured, if in the paste is added a pigment as well) areas.

<table>
<thead>
<tr>
<th>COTTON FABRICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEXILAC DISCHARGE LB</td>
</tr>
<tr>
<td>TEXILAC DISCHARGE WHITE</td>
</tr>
<tr>
<td>TEXILAC DISCHARGE LF</td>
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</table>

<table>
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<tr>
<th>DENIM FABRICS (JEANS)</th>
</tr>
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<tbody>
<tr>
<td>TEXILAC DECOLORTEX DENIM</td>
</tr>
</tbody>
</table>
### DISCHARGE PRINTING

#### COTTON FABRICS

<table>
<thead>
<tr>
<th>BASES</th>
<th>ACTIVATORS</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEXILAC DISCHARGE LB</td>
<td>TEXILAC CORRODENTE PM</td>
<td>5-6%</td>
</tr>
<tr>
<td>TEXILAC DISCHARGE WHITE</td>
<td>TEXILAC CORRODENTE PM</td>
<td>5-6%</td>
</tr>
<tr>
<td>TEXILAC DISCHARGE LF</td>
<td>TEXILAC CORRODENTE LF</td>
<td>5%</td>
</tr>
</tbody>
</table>

#### DENIM FABRICS (JEANS)

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<th>BASES</th>
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<tr>
<td>TEXILAC DECOLORTEX DENIM</td>
<td>TEXILAC DECOLORTEX</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DENIM ATTIVATORE</td>
<td>15%</td>
</tr>
</tbody>
</table>
OEKO-TEX®
A free certification system, which is “worldwide” recognized by the international textile world, examining 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
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.
INK FEATURES

TEXILAC DISCHARGE LB

HIGHEST OPACITY ONTO DARK SUBSTRATES
EXTREMELY SOFT TOUCH
VERY BRIGHT COLOURS
ANTI-FOIL EFFECT

TWO-COMPONENT INK
“ACTIVATOR”: TEXILAC CORRODENTE PM
POT-LIFE: 6 - 8 HOURS
GOOD PRINTABILITY
IT IS RECOMMENDED TO WASH THE CLOTHES BEFORE USING THEM

TEXILAC DISCHARGE LF

LOW FORMALDEHYDE CONTENT
HIGHEST OPACITY ONTO DARK BACKGROUNDS
EXTREMELY SOFT TOUCH
VERY BRIGHT COLOURS

ANTI-FOIL EFFECT
TWO-COMPONENT INK
“ACTIVATOR”: TEXILAC CORRODENTE LF
POT-LIFE: 6 - 8 HOURS
IT IS RECOMMENDED TO WASH THE CLOTHES BEFORE USING THEM

TEXILAC DISCHARGE WHITE

HIGHEST OPACITY ONTO DARK BACKGROUNDS
HIGH WHITENESS

TWO-COMPONENT INK
“ACTIVATOR”: TEXILAC CORRODENTE PM
POT-LIFE: 6-8 HOURS
IT IS RECOMMENDED TO WASH THE CLOTHES BEFORE USING THEM

IT IS RECOMMENDED TO WASH THE CLOTHES BEFORE USING THEM
INK FEATURES

TEXILAC DECOLORTEX DENIM

HIGHEST OPACITY ONTO DARK BACKGROUND
EXTREMELY SOFT TOUCH

IT MAY BE USED through SCREEN PRINTING and by SPRYING
POT-LIFE: 6 - 8 HOURS
“ACTIVATOR”: TEXILAC DECOLORTEX DENIM ATTIVATORE
IT IS RECOMMENDED TO WASH THE CLOTHES BEFORE USING THEM
### Compatible Pigments

#### Cotton Fabrics

<table>
<thead>
<tr>
<th>Pigment</th>
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</tr>
</thead>
<tbody>
<tr>
<td>TEXILAC DISCHARGE LB</td>
<td>ECOTEX P – TEXILAC COLORANTI*</td>
</tr>
<tr>
<td>TEXILAC DISCHARGE WHITE</td>
<td>ECOTEX P – TEXILAC COLORANTI*</td>
</tr>
<tr>
<td>TEXILAC DISCHARGE LF</td>
<td>ECOTEX P – TEXILAC COLORANTI*</td>
</tr>
</tbody>
</table>

* The pigments must be selected for discharge printing

#### Denim Fabrics (Jeans)

<table>
<thead>
<tr>
<th>Pigment</th>
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</tr>
</thead>
<tbody>
<tr>
<td>TEXILAC</td>
<td>NONE</td>
</tr>
<tr>
<td>DECOLORTEX DENIM</td>
<td></td>
</tr>
</tbody>
</table>
## Discharge Printing

### Curing

#### 1° Method

<table>
<thead>
<tr>
<th>Cotton Fabrics</th>
<th>Curing</th>
<th>Denim Fabrika (Jeans)</th>
<th>Curing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texilac Discharge LB</td>
<td>160°C, 3 Minutes</td>
<td>Texilac Decolortex Denim</td>
<td>160°C, 4 Minutes</td>
</tr>
<tr>
<td>Texilac Discharge White</td>
<td>160°C, 3 Minutes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Texilac Discharge LF</td>
<td>160°C, 3 Minutes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 2° Method

This method may be used when it is not possible to cure the printed clothes directly (1st method)

<table>
<thead>
<tr>
<th>Cotton Fabrics</th>
<th>Drying</th>
<th>Curing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texilac Discharge LB</td>
<td>100°C, 2 Minutes</td>
<td>160°C, 3 Minutes</td>
</tr>
<tr>
<td>Texilac Discharge White</td>
<td>100°C, 2 Minutes</td>
<td>160°C, 3 Minutes</td>
</tr>
<tr>
<td>Texilac Discharge LF</td>
<td>100°C, 2 Minutes</td>
<td>160°C, 3 Minutes</td>
</tr>
</tbody>
</table>
THE PREPARATION OF THE SCREEN HAS TO RESPECT THE FOLLOWING PARAMETERS:

- **TEXILAC DISCHARGE LB**: TH / CM 34-55
- **TEXILAC DISCHARGE WHITE**: TH / CM 43-55
- **TEXILAC DISCHARGE LF**: TH / CM 34-55
- **TEXILAC DECOLORTEX DENIM**: TH / CM 34-43
DISCHARGE PRINTING

BACKGROUND

DISCHARGE printing may be used as a background and may be overprinted with:
PLASTISOL INKS
TRANSPARENT WATER-BASED INKS

The advantage of such an application is the achievement of softer printings than the traditional ones, having good results in HIGH DEFINITION effects and FOUR-COLOUR PROCESS.

EXAMPLE

OVEN CURING CONDITIONS
TEMPERATURE: 150°C - 160°C
TIME: 2 - 3 MINUTES

TEXIPLAST 7000 MS or OP
AQUA TRASPARENTE + PIGMENTI

INTERMEDIATE DRYING

TEXILAC DISCHARGE LB
TEXILAC DISCHARGE WHITE
TEXILAC DISCHARGE LF

EPTAINKS
COMBINATION WITH MYTEX

EXAMPLE

OVEN CURING CONDITIONS
TEMPERATURE: 100°C - 110°C
TIME: 1-2 MINUTES

TRANSFER CONDITIONS
TEMPERATURE: 150°C
TIME: 15 SECONDS
PRESSURE: 3 bars
DISCHARGE PRINTING

MOST COMMON INCONVENIENCES AND THEIR SOLUTION

NOT VERY BRIGHT COLOURS

1- THE FABRIC MAY NOT BE COMPLETELY DISCHARGE
Verify the dischargeability of the used fabric

2- WRONG TH/cm NUMBER OF THE SCREEN
Reduce the number of TH/cm – change the Screen

THE COLOUR DOES NOT DEVELOP

1- THE SELECTED PIGMENT DOES NOT RESIST DISCHARGING
Select an appropriate pigment

CHANGEABLE RESULTS DURING THE TIME

1- THE INK HAS EXHAUSTED HIS “DISCHARGING” POWER
Always maintain the ink fresh in the screen through frequent addition of “fresh” ink
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