



Basics

- The fabrics are mostly from woven construction
- Typical materials are cellulose or artificial fibers
- The construction is mostly firm and tight
- The fabric surface may be flat or structured jacquard, flock, velour, plush or others
- Fabric weight is usually heavy, may reach 500 g/m² or even more

Printing Methods

- As most of the fabrics come at a width of 1,400 to 1,600 mm, the **COLARIS** .

PRINTER with 2,200 mm working width will cover the demand easily.

- Dark colors are applied rather than bright ones, and the color gamut is not as big as known from fashion fabrics. Therefore, a 4-color setup is usually preferred.



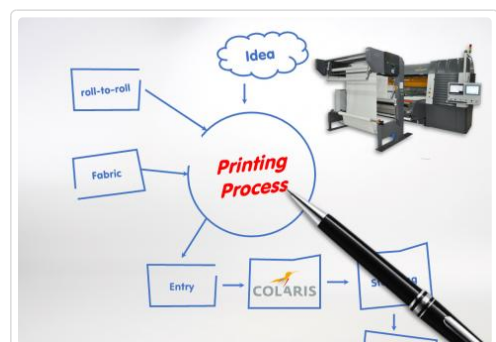
Printing on Cellulose and Protein Fiber based Fabrics

- Cellulose based fabrics can be printed with Reactive or VAT dye inks.
- PA (Nylon) and Protein fiber based fabrics are mostly printed with Acid dye inks.
- Pigment inks may be used on fabrics made from any fiber or yarn blend.
- Reactive prints are known for brilliant and bright printing results with good washing fastness, but they have a limited light fastness, especially with red shades.
- Acid dye prints are very bright, but have limited light fastness properties. Chlorine fastness is poor.
- VAT dye inks have excellent light and wash fastness properties, incl. chlorine bleach and dry cleaning. For real high-end fabrics, VAT dye inks are the best solution.
- Pigment inks are good for high light fastness, but have poor haptics and a low resistance against dry and wet rubbing.

Printing on PES Fabrics

- On PES and PES Microfiber fabrics or suede fabrics, direct disperse and direct sublimation inks are used.
- PES inks give strong colors and have excellent light, rub and wash fastness properties.

Printing Process



Reactive printing

- Inkjet pre-treatment is usually applied inline by **CHROMOJET** digital pre-treatment applicator
- Design printing with **COLARIS**, using Reactive dye inks
- Offline steaming process for ink fixation
- Post-print washing process to clean the fabric from unfixed dyes and pre-treatment chemicals
- Final fabric finishing according to the customer's needs

Option: Inline fixation of inks by a wet-in-wet process right after printing, thus saving energy and reducing the handling process

VAT dye printing

- Inline inkjet pre-treatment applied by the **CHROMOJET** digital pre-coating unit
- Design printing with **COLARIS**, using VAT dye inks
- Inline fixation for about 40 seconds by steaming process
- Inline post-print neutralization and washing off unfixed dyes and pre-treatment chemicals
- Final fabric finishing according to the customer's needs

Pigment printing

- Inkjet pre-treatment of the fabric
- Printing with **COLARIS** and inline drying
- Improving rub fastness by applying a fixing agent, followed by a polymerization process
- Final fabric finishing according to the customer's needs

Option: Mechanical finishing to improve the haptics of the fabric

Disperse and direct sublimation dye printing

- Inkjet pre-treatment of fabric
- Design printing with **COLARIS**, using direct disperse or direct sublimation inks
- Post-print drying - inline right after printing
- HT steam fixation in a loop steamer for 8 to 10 minutes
- Reductive washing and vacuum extraction for high light and rubbing fastness

Option: Inline inkjet pre-treatment applied by the CHROMOJET digital pre-coating unit

Option: SUPRAPRESS penetration support

Option: Inline fixation for about 4 minutes

Printing Machines

- Our **COLARIS** .

TEXTILE PRINTER with FUJIFILM Dimatix StarFire™ print heads is the best solution for high-volume print production.

- As most of the fabric is heavy or even of voluminous structure, the use of print heads with a bigger droplet size (i.e the StarFire™ SG1024 MA) can deliver the required ink amount for a good penetration - required to avoid grinning of white at the seams.
- The ReadyJet™ ink circulation system guarantees sufficient ink availability under any working condition.
- Ink circulation prevents the sedimentation of solid ink particles. This is especially important when printing with VAT dye or Pigment inks.
- The **COLARIS** .

PRINTERconcept allows a flexible layout according to the requirements of various ink dye classes.

- Our open ink system allows to select among various ink manufacturers available in the market.

Get more information in our PDF's: