



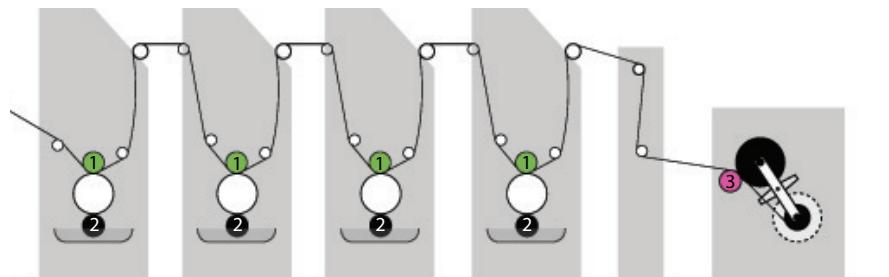
ROLLER AND SLEEVE COVERING FOR THE DECORATIVE INDUSTRY

People are always seeking solutions for the deposition of decorative and functional materials on everyday objects and surfaces.

The industry of décor printing is rapidly evolving and growing rapidly in all domains: the automotive industry, floor coverings and also wall coverings can be added now to the furniture industry. The printed supports are also changing. Various types of paper, plastic foils and vinyl are the most common printed media in this sector and this list is growing constantly.

The printing quality requirements are constantly increasing. Concerning new developments the decorative industry needs to face short runs involving numerous changes during each production shift.

OUR COVERING SOLUTIONS FOR ROTOGRAVURE

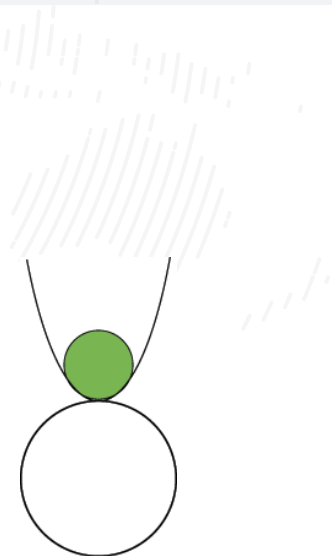


1. NON-ESA: *PressoGraf / HanneVision-AS*
ESA: *HanneVision*
2. *DoseRight*
3. *MicroGraf*

Impression roller and sleeve covering for classic rotogravure (non-ESA)

The **PressoGraf** coating for classical rotogravure presses is by default antistatic and so reduces fire risk as a result of sparkover. The impression roll coverings or sleeves are available for the applications of decorative printing, cardboard printing and flexible packaging.

HanneVision AS is the next generation PU roller and sleeve coverings developed by HanneCard. These roller and sleeve covering solution features a proprietary new process that combines nanotechnology and polyurethane.

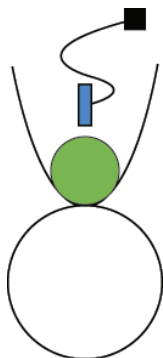


Classical Rotogravure

Solution	Characteristics & benefits
Pressograf-AS Black - Rubber 65-85 Shore A	<ul style="list-style-type: none"> • Good mechanical & dynamical behaviour • Perfect chemical resistance against ketones, alcohols and acetates • Anti-static covering
HanneVision AS New polyurethane generation Brown 90 Shore A	<ul style="list-style-type: none"> • Best possible mechanical & dynamical behaviour, increased service time • Very good chemical resistance against ketones, alcohols. With acetates, to be used in combination with cut-backs to webwidth. • Outstanding stability of the antistatic properties • Outstanding resistance against abrasion

Sleeves and pressure roller covering for ESA printing

HanneResist & the NEW generation ESA covering: HanneVision.

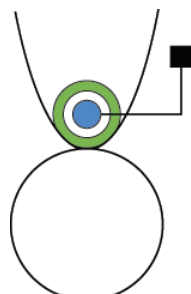


Top load

For more than 15 years, all new presses for the décor printing are delivered with ESA (Electro-Static Assistance) system. When it comes to really accurate jobs, the ESA helps in quality, setting times and speed of line.

Thanks to more than 30 years of experience in ESA printing, HanneCard has accumulated an incomparable knowledge in this domain. We offer 2 or 3 layer coverings to answer to all requirements related to ESA system.

Our coverings are adapted for 1 or 2 nip pressure rollers, conical GFK sleeves and NipCo® sleeves GFK or PUR based.

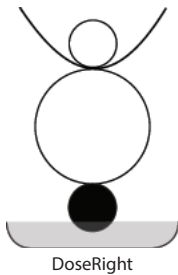


Direct charge

Solution	Characteristics & benefits
Hanneresist (traditional solution) Polyurethane 90 Shore A	<ul style="list-style-type: none"> • Superior abrasion resistance (4 x higher than rubber) • Superior cut resistance (2 x higher than rubber) • Stable electrical resistance • Long service time • Compounds versions available 'tuned' for water-based inks
HanneVision NEW ESA polyurethane generation Black 90 Shore A Top load & direct charge	<ul style="list-style-type: none"> • All the possible mechanical & dynamical advantages of a polyurethane covering • Long lasting and stable electrical properties • Use of the ESA at lower power levels compared to any other coverings • Homogeneous electrical resistance over the roller face • Lower heat build-up in the press



*example of laser engraved square pattern



Laser engraved inking roller covering

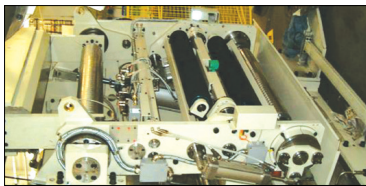
DoseRight

Ink transfer to the engraved roller is key for the print quality. Doseright is a laser engraved 55-60 Shore inking roller covering.

The laser engraving exists in various patterns : squares, pyramids, honeycomb, scattered or random. It insures the appropriate inking to your engraved roller for all kind of substrates.

The advantages of DoseRight :

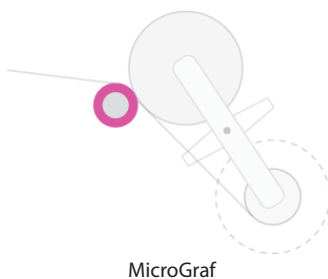
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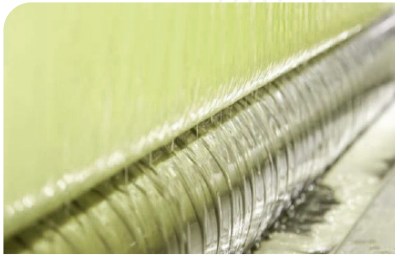
Paster roller covering for splicers

MicroGraf

The junction between 2 spools is critical for long runs and productivity. Hannecard has a complete range of products to answer to all needs in that matter.



Solution	Characteristics & benefits
MicroGraf Black - Foam rubber	<ul style="list-style-type: none"> • Micro-cellular foam. • Perfect contact behaviour • Excellent ability to deformation leaving no marks • Very high flexibility • Constant Elasticity • Perfect flatness of the gluing • Elimination of air bubbles when gluing
MicroGraf + Black - Foam rubber & plain rubber	<ul style="list-style-type: none"> • 2 Layer micro-cellular foam + plain rubber at the surface • Same advantages as MicroGraf • Increased resistance to abrasion
SpliceOGraf-XP Transparent Polyurethane 8, 17 & 22 Shore A	<ul style="list-style-type: none"> • Polyurethane low rebound • Perfect contact behaviour • Outstanding ability to deformation leaving no marks • Excellent resistance to abrasion and cut



OUR COVERING SOLUTION FOR IMPREGNATION LINES

Backing roller & sleeve covering for impregnation

Decor papers are often pre-impregnated with a melamine resin to higher the density and thus to improve the strength properties of the fiberboards and particle boards coated with these papers.

At Hannecard we developed the HanneStar-AS and Hannethane-AS covering for the pre-impregnation of decor papers.

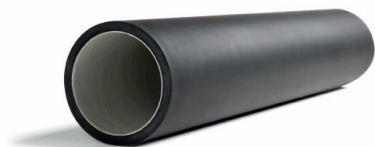
Solution	Characteristics
HanneStar-AS Rubber - black 80 Shore A	<ul style="list-style-type: none"> • Very good physical properties, tear and abrasion resistance • good elasticity and resilience • Antistatic
Hannethane-AS Polyurethane - black 80 Shore A	<ul style="list-style-type: none"> • Excellent mechanical properties • Excellent abrasion, tear and cut-in resistance • Very good deformation recovery, high resilience

TAPERED SLEEVES



Why choose the hannecard EasySleeves® :

- **Optimized design** : all EasySleeves® are designed to have optimal thickness, structure, material & flexibility to get the maximum result for every application.
- **Optimized composition** : the newest resins, reinforcements & additives guarantee an unseen shape stability, lifetime and control of the electrical properties.
- **Optimized bonding** : the combination EasySleeve® + Hannecard elastomer cover guarantees the highest bonding strength in the market.



MORE INFORMATION ?

For more information about our products and solutions, please contact your local partner or visit our website: www.hannecard.com

All our products are **countroll®** ready. check www.countroll.com for more information.

As a further improvement of the old "Speedwell" standard, Hannecard developed EasySleeve®. EasySleeve® has been specifically optimized for the demanding needs linked to laminator, impression and coater rollers. The shape and dimensions are chosen for easy mounting, yet high stability and lifetime in every application, even for big-size sleeves. Hannecard also supplies different kinds of mandrels (standard and low deflection), both to OEM and end-users.

The Hannecard EasySleeves® comply with all existing machines in these industries. The unique features and benefits of the Hannecard Easysleeves® are:

- Comply with old "Speedwel" standard
- Enable new dimensions (after sale service)
- High insulation if required
- High conductivity if required
- different combinations possible: Insulating inner layer + conductive outer layer or conductive inner layer + insulating outer layer
- Associated to bonding system of the rubbers and the polyurethanes fine-tuned by application

SLEEVES FOR NIPCO®

Hannecard supplies glass fibre (GFK) sleeves in conical or cylindrical version to adapt on the NipCo® supporting core. The special CFK used is following the deformation of the NipCo® core.

We also have developed a polyurethane sleeve with technical textile reinforcement in order to offer a high end system dedicated to variable crowning needs.