

ROLL COVERING SOLUTIONS FOR THE EMBOSSING AND FINISHING OF TISSUE PAPER PAPER CONVERSION

Paper tissue is one of the most widely used products in the world. As hygiene is a growing concern in emerging countries, the demand of hygiene papers is still increasing.

At the same time, the products are rapidly evolving : decor and colour patterns, multi-layered products, smoothness and silkiness, perfumes and high resistance are features that appeal more and more to potential customers.

Therefore, many paper converters increase their product range, but at the same time need to reduce cost and improve the efficiency and output.

With the increase in production speed, web width and pattern complexity, the requirements towards elastomer coated rolls have become very stringent.

Hannecard proposes multiple solutions and advantages for all elastomer coated rolls involved in the process.

The figure on the left shows a classic concept for nested embossing, widely used for the production of toilet paper and tissue towels.

Also different machines can of course be used for simple or combined embossing and for other tissue products.

EMBOSSING ROLLS

Hannecard has developed 3 product ranges allowing an optimal choice, depending on the specific needs of the embossing machine and the tissue products :

Product	Properties
EmboFlex Green - Rubber 45-65 shore A	 Outstanding resilience Low heat build-up and hysteresis loss Can be affected by aromatic lotions and perfumes Suited for all embossing types
EmboFlex-XP Green - Rubber 45-60 shore A	 Outstanding abrasion resistance High temperature resistance Low heat build-up and hysteresis loss Can be affected by aromatic lotions and perfumes Recommended for single and spot embossing
EmboFlex-XL Blue - Rubber 55-60 shore A	 Outstanding resilience and compression-set Very low heat build-up and hysteresis loss Resistant to aromatic lotions and perfumes Recommended for combined and micro embossing



YOUR NEEDS :

- Stable pattern reproduction
- High resilience
- Low heat build-up
- Good abrasion resistance
- · Sometimes resistance to perfumed lotion or glue

THE HANNECARD ADVANTAGE :

- Long lifetime
- Excellent and stable embossing behaviour, both for spot and micro embossing, even at high speed
- No shadow marking



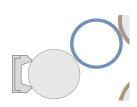


YOUR NEEDS :

- High affinity for the (water based) glue
- Very high geometrical precision
- Defect-free surface

THE HANNECARD ADVANTAGE :

- Rubber and polyurethane solutions
- Optimal glue transfer, also for coloured glue
- Compounds with improved purity and homogeneity
- High precision grinding and finishing
- Easy to clean
- Sleeve solutions



YOUR NEEDS :

- · Hard without crushing the paper
- Smooth surface
- Stable geometry in time

THE HANNECARD ADVANTAGE :

- Rubber and polyurethane solutions
- High surface gloss for optimal paper release
- Very stable pressure nip and surface geometry
- Easy to clean



APPLICATOR (CLICHE) ROLLS

On modern tissue finishing machines, the cliché rolls have become considerably larger and heavier than before. Yet the typical needs of applicator rolls (precise geometry, purity, defect-free surface, transfer affinity) have remained unchanged. Furthermore, the reduction of glue consumption has become an absolute priority.

Hannecard has not only developed products with an exceptional performance, we are also equipped with high precision grinding and finishing machines that assure the required dimensional precision and the correct surface profile.

All Hannecard solutions can be obtained with composite carrier sleeves, including the recoating of your existing sleeves.

Product	Properties
GlueFlex Green - Rubber 65 shore A	High purityExcellent transfer propertiesGood lifetime in contact with the metering roll
GlueFlex-XP Dark blue - Polyurethane 60-70 shore A	 High purity Outstanding transfer properties and surface energy Improved abrasion resistance Resistant to aromatic lotions and perfumes

MARRYING ROLLS

For two and multi-layered paper, the marrying roll will determine the quality and the precision during the lamination process. A very stable behaviour in the nip is required, even at high pressure.

Product	Properties
CombiStar Black - Rubber 85-95 shore A	Very good physical properties and abrasion resistanceGlossy surface for good paper release
CombiStar-XP White - Polyurethane 90 shore A	 Outstanding physical properties and abrasion resistance Optimal nip stability Still improved paper release

OTHER APPLICATIONS

Hannecard offers specific solutions related to the finishing of tissue paper :

- Fountain rolls for glue application, found on some machine types
- Flexo or gravure printing of logos and décor motives : cliché rolls and sleeves, pressure rolls and sleeves
- · Off-line coating of hygiene paper with softening lotion and/or perfume : applicator rolls
- Cutting and winding : drum and lay-on rolls

MORE INFORMATION?

For more information, please contact your local Hannecard partner or visit our website at: <u>www.hannecard.com</u>

