

# ROLLER COVERINGS FOR THE GRAPHICAL INDUSTRY

## FLEXOGRAPHY

In the past few years, the complete environment of flexography has continuously been the object of a strong evolution, thanks to enhanced print substrates and a large number of technological advances such as improving sleeve technology, new types of printing plates, redesigning the printing presses and redefining roller covering compounds.

### FLEXOGRAPHY - THE ADVANTAGES

- A **constantly improved quality**
- A **highly flexible** use
- **Short change-over times** from one printing job to the other
- **Ideal for edition in small volumes**
- **Cost-saving**

The selection of a suitable roller covering is a key element that determines the quality of your end product. Elastomer compounds are used in the following flexo areas: ink fountain rollers, laser engraved cylinders or plate sleeves.

The most important feature is undoubtedly the chemical resistance. The flexo industry uses a wide variety of products that contain solvents and chemicals that control the ink viscosity. A good chemical resistance is therefore a decisive element when it comes to choosing the right elastomer.

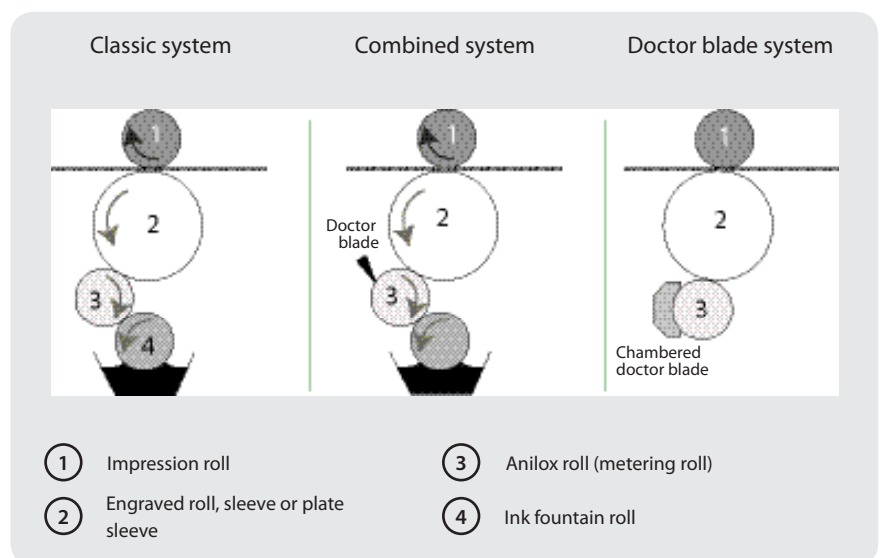
Other important characteristics are the ink transfer qualities, hardness and abrasion resistance.

All elastomer compounds contain a number of properties that make it appropriate for a given application. However, every situation is different. Therefore it might sometimes be desirable to adapt a roll covering so that it suits your needs.

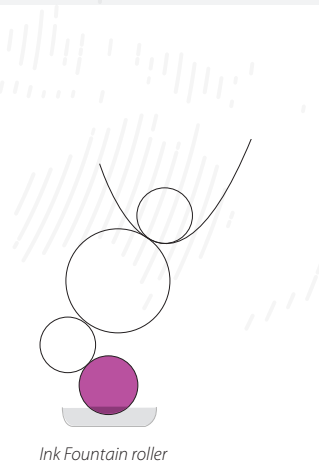
We kindly invite you to take a look at the range of compounds we have developed for the flexo industry.

### DESIRED PROPERTIES

- Chemical resistance
- Hardness
- Good ink transfer
- Resilience
- Ozone resistance
- Abrasion resistance



Flexo Systems



Ink Fountain roller



HanneFlex - Exceptional cut resistance

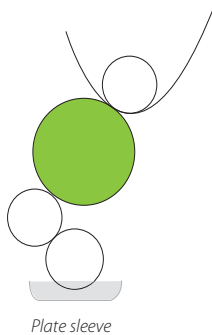


Plate sleeve

### LASER ENGRAVING - ADVANTAGES Compared to the photopolymer system

- **The only step between prepress and final printing:** no chemical process, no mounting of photopolymer plates onto a cylinder ...
- Laser engraved rubber is **less sensitive to inks** than a photopolymer
- Laser engraving technology **enables high-speed printing** while maintaining quality
- **Better abrasion resistance** for laser engraved rubbers > **longer lifetime** than photopolymer

### MORE INFORMATION ?

For more information about our products and solutions, please contact your local partner or visit our website: [www.hannecard.com](http://www.hannecard.com)

## INK FOUNTAIN ROLLERS

The ink fountain roll is used to take up the ink and deposit it upon the surface of the cylinder or sleeve, which can be either engraved or not, using a metering roll (or "anilox" roll). In some cases, it is replaced by the chambered doctor blade or more and more by combined systems installed on new equipment.

We offer you qualities with high chemical resistance, which assures a good ink transfer, that are compression resistant and that have a long lifetime.

According to the specifications of your machine manufacturer, or once the mould form has been taken by our technicians, we can produce a cylindrical or a barrel-shaped cambered finish. This is to ensure a nip on the whole length of your cylinder.

| Ink type                  | Solution  | Type         | Characteristics  |
|---------------------------|---|--------------|--|
| Water based inks          | <b>FlexoGraf-SL</b><br>Black<br>60, 65 Shore A  | Rubber       | <ul style="list-style-type: none"> <li>• Excellent mechanical properties</li> <li>• Very good resistance to water based inks</li> <li>• Good abrasion resistance</li> <li>• Increased resistance to oils, alkaline products and diluted acids</li> </ul> |
|                           | <b>HanneFlex</b><br>Dark blue<br>60, 65 Shore A | Polyurethane | <ul style="list-style-type: none"> <li>• Exceptional cut resistance</li> <li>• Excellent abrasion resistance</li> <li>• Outstanding crush resistance</li> </ul>  |
| Solvent based and UV inks | <b>FlexoGraf-SB</b><br>Black<br>70 Shore A      | Rubber       | <ul style="list-style-type: none"> <li>• Very good resistance to polar solvents (MEK), esters (acetates), ketones and alcohols</li> <li>• Very good abrasion resistance</li> <li>• Excellent dynamic properties</li> </ul>                               |

## ENGRAVED CYLINDERS OR PLATE SLEEVES

It is this very cylinder that applies the ink to the print substrate. On this position you will find either :

- **The metallic cylinder** which can be rubber covered and laser engraved
- or **the metallic cylinder** onto which a photopolymer printing plate is fixed;
- or **a laser engraved (or not, such as for the covered cylinder) sleeve** that is slipped onto a pneumatic mandrel ;
- or **a photopolymer plate sleeve** that is slipped onto a pneumatic cylinder. This covering type is applied either directly onto the metallic cylinder, or onto a fibreglass sleeve, which allows a large flexibility in decoration change.

Hannecard proposes solutions for the rubber covered rollers and sleeves, with or without laser engraving:

| Solution                                  | Type                    | Characteristics   |
|---|-------------------------|---|
| <b>FlexoGraf-L</b><br>Black<br>60 Shore A | Laser engravable rubber | <ul style="list-style-type: none"> <li>• Very good resistance to polar solvents (MEK), esters (acetates), ketones and alcohols</li> <li>• Very good resistance to UV and solvent based inks</li> <li>• Excellent ozone and water resistance</li> <li>• Remarkable purity and homogeneity</li> </ul> |