



ligum

Elastomer Sleeves

LIGUM North America, LLC  
[www.ligum.com](http://www.ligum.com)



# Profile

LIGUM spol. s r.o. started production in Jablonec nad Nisou (Czech Republic) in May 1993. In 1997 Westland GmbH (Germany) invested in LIGUM and the company joined what is now referred to as the Westland Group. Westland manufactures in Germany, Czech Republic, Spain and China. From its beginnings in the Czech Republic, Ligum has seen rapid growth and now operates plants in the Czech Republic, Slovakia, Poland, Ukraine and Russia. Both Westland and Ligum cooperate with alliance partners around the globe.

1997 was also the first year in which Ligum produced its first “sleeve”, an elastomer covered fiberglass tube for flexographic printing. At present, elastomer covered sleeves are the primary items produced in Ligum’s modern new plant in the Czech Republic.

With flexography continuing to grow, Ligum stands as a market leader with great potential for future growth and development.

With a strong market position in Europe and demand growing in North America, Ligum seized the opportunity to satisfy the needs for flexographic printers and converters in the USA, Canada, Mexico and Central America.

Ligum North America, LLC is a state of the art facility established in Kenosha, Wisconsin USA. Like its Czech parent, the Company serves Customers in the flexo, gravure and converting industries, providing first quality, precision elastomer covered sleeves.



# Flexography

## Flexographic printing

Flexography printing is constantly growing in popularity in the market by providing ever-increasing print quality and flexibility in using different inks and substrates. Sleeve technology has brought acceleration in speed, simplification and lower costs when replacing a printing form and within printing itself. Ongoing developments in direct laser engraving and our new generation of elastomers now work together to achieve very high print quality.

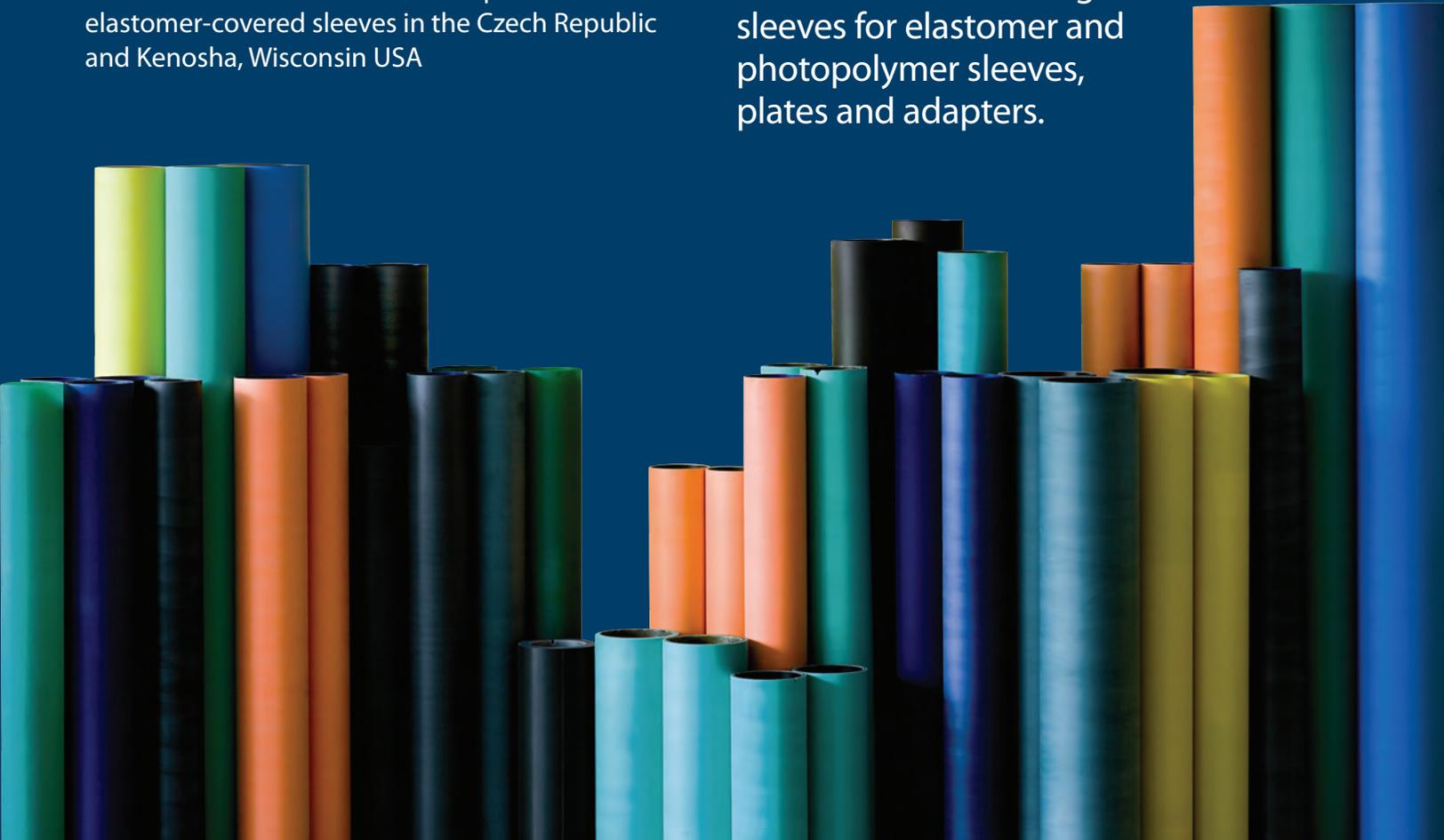
Based on many years of experience and continuous development of materials including many laboratory and practical tests, we are able to choose or adjust an optimal material according to the requirements and needs of each customer.

Through intensive technology development and unique innovations in the production process, we have created modern facilities for production of elastomer-covered sleeves in the Czech Republic and Kenosha, Wisconsin USA

Main benefits of direct-engraved elastomer-covered sleeves are:

- Excellent transfer of all printing inks
- Possibility of printing seamless motives
- No plate lift
- Optimal register
- Increased press speed
- High resistance to solvents (ethyl acetate, ethanol, mek)
- High durability of printing form
- Possibility of combining several materials
- Improved mechanical properties
- Conductive sleeves
- Environmentally friendly
- Ability to regrind and recover previously-used sleeves

We also offer mounting sleeves for elastomer and photopolymer sleeves, plates and adapters.



# Ligum Premium Thin Sleeves

Ligum is confident in the benefits of elastomer technology and yet sensitive to the needs of Flexo printers who already utilize other plate and in-the-round materials.

Advances in base sleeve designs, new elastomers and innovative production techniques make precision "Thin" and "Classic" thickness covered sleeves possible. These unique print media create opportunities to realize the benefits of elastomer sleeves while leveraging your existing tooling investment.

Ligum Premium "Thin" and "Classic" gauge sleeves are produced to match the build-up of various polymer and plate materials — whether they be in-the-round or tape-mounted. While certain thicknesses are standard, there is no limit to the combinations that can be achieved with this technology.

Thin gauge sleeves can serve for printing on compressible adapters (similar to other in-the-round products). In the case of Classic gauge sleeves, printing is also possible directly on air mandrels or adapters with hard surfaces.

Ligum elastomer coverings are "Laser-Ready". Each compound has been specially designed for optimal direct laser engraving via CO<sub>2</sub>, YAG and Diode Lasers. Laser engraving eliminates all chemical processing. High resolution is achievable for solids, patterns, type and fine process color printing.

Premium Thin gauge elastomer sleeves offer numerous benefits including:

- Elastomer is precision ground to tight tolerances — just like plate cylinders.
- Elastomer has fine engraving characteristics
- Print results are of high quality
- Elastomer has higher abrasion resistance, resulting in improved service life over photo-polymer
- Like other Ligum sleeves, elastomers can be selected to match specific ink and substrate requirements.





# Gravure printing

Gravure printing as a technology provides high printing speed and quality. These operational factors place stringent demands on the quality of impression rollers and sleeves. In addition to mechanical demands, long lasting stability in gravure printing inks is important. LIGUM offers suitable elastomer covers with materials based on EPDM, NBR, Hypalon, ECO, and Viton for different types of gravure printing inks. Impression sleeves with electrostatic printing assistance (ESA) are breaking through more and more with the growing demands on increased printing quality.

## Types of rollers, sleeves:

- Standard Impression Sleeves (without ESA)
- Impression Sleeves with electrostatic printing assistance (ESA)  
1-layer, 2-layer, 3-layer

## Sleeve types by shapes:

- Conical (Tapered)
- Cylindrical (Parallel)
- Special (Nipco)

## Benefits:

- High resistance against pressure and mechanical load
- High resistance against solvents (alcohols, esters, toluene)
- Choice of adequate compounds according to ESA demands
- Ability to recover used sleeves

# Lamination

In addition to rollers and sleeves for flexographic and gravure printing, LIGUM also offers elastomer coverings for other converting technologies:

## Rollers and sleeves for:

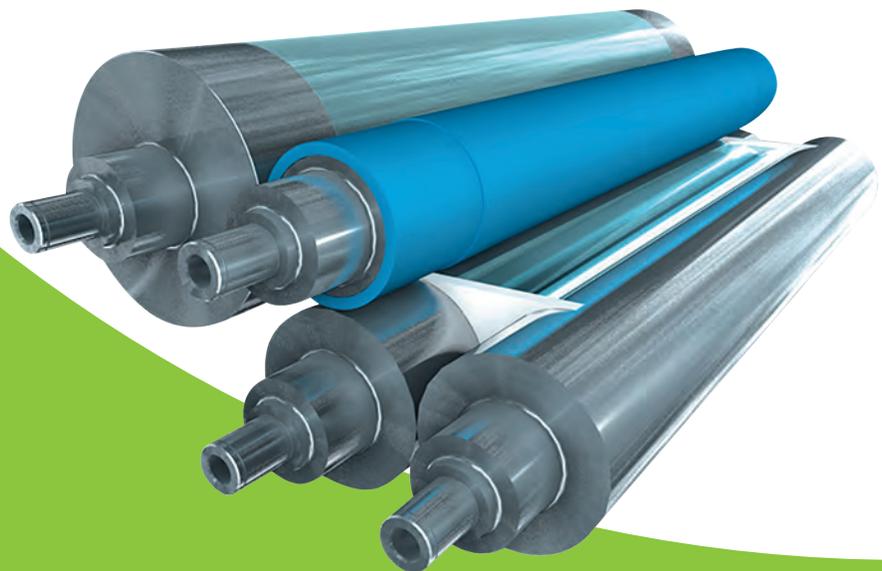
- Laminating  
cold  
hot
- Lacquering
- Printing
- Coating
- Other types (embossing, combining nip, substrate guiding, Corona, etc.)

Optimal elastomer compounds have been developed for individual technologies including: EPDM, NBR, SBR, Hypalon, Silicone, Viton, CPE.

Our new SIMPLY BLUE compounds in hardness from 60° to 90° Shore A have proven very successful for laminating of films and foils in the production of flexible packaging.

## Benefits:

- Opportunity to select optimal material for each printing and converting technology
- Very good anti-adhesive characteristics
- High resistance against laminating materials and solvents
- Excellent mechanical properties





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