

A close-up, artistic photograph of a woman's face. She has dramatic makeup, including gold shimmer on her cheeks and lips, and blue and gold eye makeup. Her eyes are closed. Several fiber optic cables are visible, some entering her face and others looping around her head, suggesting a connection between technology and human creativity.

**Textiles & Creative**  
The Finest Wire Products

**The Quality Connection**

**LEONI**

## Textiles & Creative – from Lyon to Lyonese Wares.

**The history of our business can be traced back to 1569, when Anthoni Fournier from Lyon began producing the finest metal wires, threads, bouillon and braid, known as “Lyonese Wares” in a small workshop in Nuremberg.**

These days, classic “Lyonese Wares” are produced at LEONI’s site in Weissenburg, Franconia, Germany, while the woven products, in particular the sumptuous fabrics, decorative trims and ribbons are produced by LEONI Felisi in Italy.

Even though most of our products can be put to universal use in a variety of applications, we differentiate between two application areas, namely “textiles” and “creative”. The difference lies in the processing techniques used in our products and the items that result at the end of the various processing steps.

The “Textiles” area encompasses a number of process steps, namely knitting, weaving, sewing and lace making, as well as ornamental trimmings and religious hangings. At the end of our customers’ manufacturing processes are mostly found clothing of all kinds (civilian clothing and religious vestments, as well as uniforms), as well as upholstery materials and decorative furnishing items (such as tassels).

The “Creative” area mainly covers products used for decorative purposes (packaging, table decoration, flower arranging). Secular and religious handicrafts (jewellery, handicrafts carried out in enclosed religious orders) also make use of attractive Lyonese Wares. Our spun wires for music strings are products of quite a different sort. These ensure the perfect sound for both plucked and bowed string instruments.



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The Quality Connection



Textiles & Creative  
product range

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# The LEONI Group

Cable expertise for the most varied industrial markets.

LEONI is a leading supplier of cables and systems as well as related services for the automotive industry and various other industrial sectors.

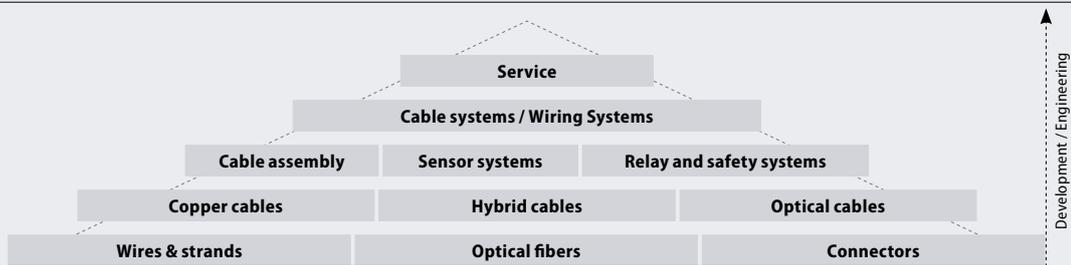
Our group of companies employs more than 55,000 people in 37 countries. Corporate vision, highest quality and innovative power have made us one of the leading cable manufacturers in Europe. LEONI develops and produces technically sophisticated products ranging from wire and optical fibers to cables through to complete cable systems and also offers the related services. Moreover, the product portfolio comprises strands, standardised cables, hybrid cables, glass fiber as well as special cables, cable harnesses, wiring systems components and fully assembled systems for applications in various industrial markets.

### Your markets – our strength

As diverse as our product and service range are the markets and sectors LEONI is supplying. We focus our activities on customers in the fields of Automotive & Commercial Vehicles, Industry & Healthcare, Communication & Infrastructure, Electrical Appliances and Conductors & Copper Solutions.

We are one of the leading European suppliers in the Conductors & Copper Solutions market, which at LEONI also covers the manufacturing of wires for the areas of “Special Conductors” and “Copper Solutions”. Customers of our Copper Solutions business unit benefit worldwide from innovative as well as reliable and long-lasting products of high quality. LEONI – we create the best connection for your future. *further information at [www.leoni.com](http://www.leoni.com)*

### Products and services portfolio at a glance



### LEONI's core markets



## Copper Solutions

We never lose sight of your solution.

### Traditional expertise

Our roots in drawing wires can be traced back to the Middle Ages. LEONI laid the foundations for a successful business with the production of gold and silver wires and the finest metal threads, known as Lyonese Wares. In the 1920s the first wires and strands were produced for electrical engineering, then a rapidly growing area of industry.

These days, LEONI is regarded as one of the world's leading suppliers in the Conductors & Copper Solutions market, producing highly sophisticated conductors and strands for cable technology and for special applications in the area of electrical technology and electronics. It is a leader in terms of the international presence of the business and the quality of the products and production technology. LEONI has also played a lasting role in influencing technologies such as multi-wire drawing, galvanic finishing of wires or machining into precisely shaped strands.

### Business Unit Copper Solutions

The Business Unit Copper Solutions enables us to offer our customers a broad range of wires and stands, as well as highly flexible wire products.

Our extensive expertise in applications means that our products are to be found not just in one specific sector. That's because LEONI products prove to be the ideal solution wherever electricity is carried or needs to be grounded and the conductor is subjected to high mechanical stresses due to permanent movement and vibration – in electric motors, circuit-breakers and safety switches, relays and thyristors, as well as in welding plants, control cabinets, cars, aircraft, ships and wind power stations.

Although the main focus of our work is in the areas of electrical engineering and electronics, we have still remained faithful to our tradition of manufacturing Lyonese Wares. That's because things have developed significantly here too. In addition to the classic application areas, such as church vestments and altar cloths, these days our finest wire products can also be found in national costumes, uniforms, flags and decorative fabrics.

## Copper Solutions – Worldwide

Our presence at a worldwide level benefits you at local level.

LEONI can be found not just at our production locations in Germany, Italy, the USA and China, but also worldwide, enabling our customers to access a broad, international network.



**LEONI Wire Inc.**  
Chicopee MA, USA



**LEONI Draht GmbH**  
Weissenburg, Germany



**LEONI Felisi S.r.l.**  
Codogno, Italy



**LEONI Wire (Changzhou) Ltd.**  
Changzhou, P.R. China



 Production of highly flexible wire products for electrical engineering applications

 Production of the finest wire products for textile and decorative applications  
You will find further information at [www.leoni-felisi.com](http://www.leoni-felisi.com)

# LEONI – The Quality Connection

## Quality and Environmental Management

The high standard of LEONI quality management and active environmental protection support the company's strategy of acting as a partner to its customers with a worldwide presence.

### Top quality

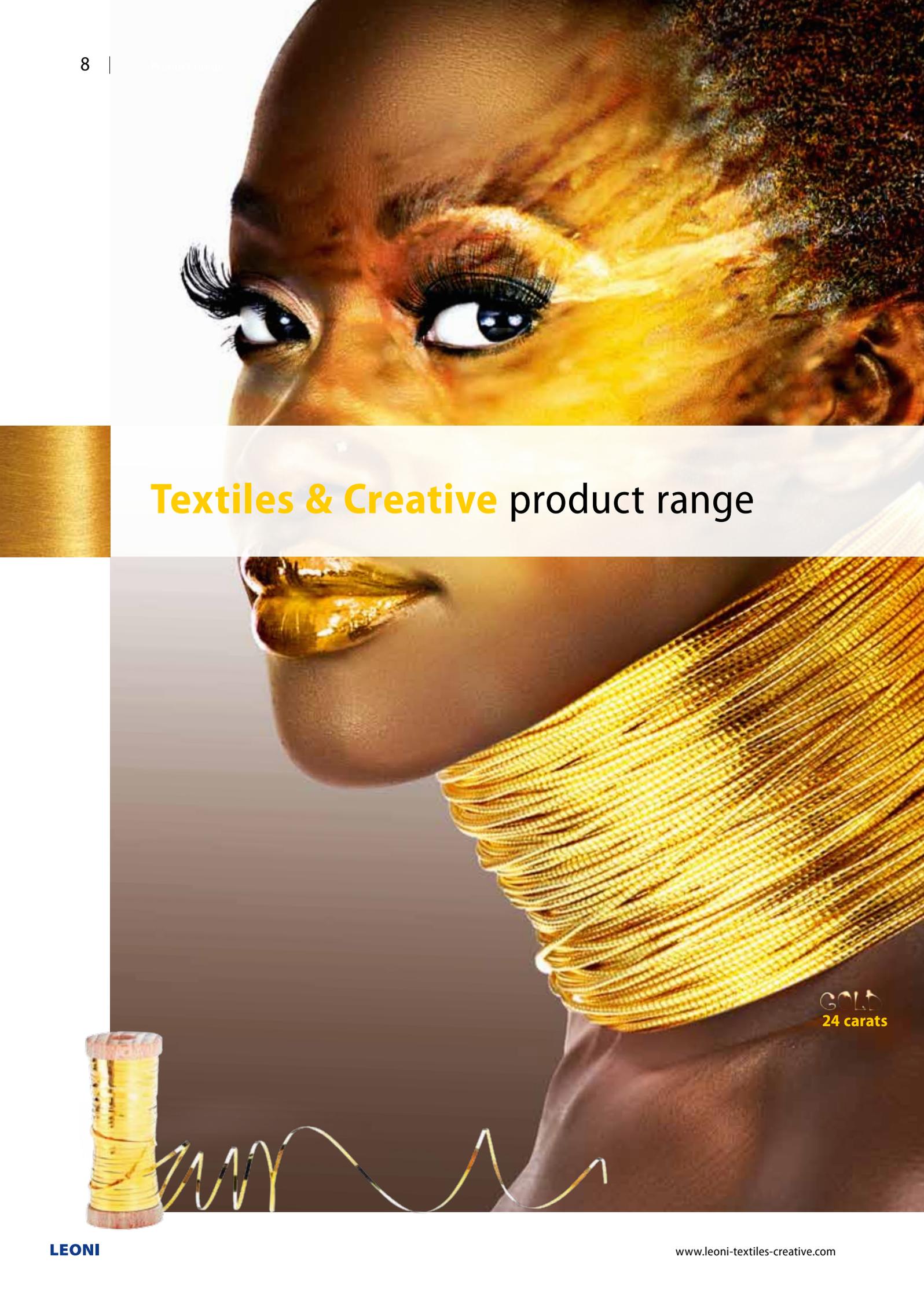
A global harmonised and ISO 9001:2008 and ISO/TS 16949 certified quality management system enable us to ensure that our products and services meet uniform quality standards.

By using the latest production techniques, such as multi-wire drawing and advanced production systems and process equipment, our products attain a high degree of quality and reliability. Whether use in the industrial or textile sectors, our wire solutions always meet the stringent standards of our customers. This is proven by our unique reference list of internationally leading businesses.

### Green Technology

Business success and ecological responsibility are no contradiction in terms for us. As a company operating globally, we acknowledge that we share responsibility for safeguarding the natural essentials of life. It is our aim to strike a balance between environmental concerns and the interests of our Company. Environmental protection consequently is a mandatory element of our business activity. We advise our customers on environmentally friendly ways to handle and dispose of our products.

We ensure, with our DIN EN ISO 14001-certified environmental management system, that our environmental policy is applied in the entire group effectively.

A close-up, profile view of a woman's face. She has dramatic gold eye makeup, including shimmering eyeshadow and long, dark, curled eyelashes. Her lips are coated in a glossy, metallic gold lipstick. She is wearing a thick, multi-strand gold braided necklace that frames her neck. The background is a soft, out-of-focus gradient.

# Textiles & Creative product range

GOLD  
24 carats



**We mostly produce tailor-made special products that are manufactured precisely to your specifications.**

Please contact us if you have any special requirements or if the product you are looking for is not listed. LEONI is sure to have the right solution.



#### **Lyonese Wares**

The desire to dress up in valuable gowns is probably almost as old as humanity itself. With ultra-fine wire products such as metallic like threads and bouillon, which it has been possible to produce in larger quantities since the Middle Ages, it became feasible to produce precious embroideries as well as artfully woven braids and ribbons, and to apply them to garments and other fabrics. This created a fashion market that was the sole preserve of the rich and powerful of this world. Lyonese Wares gradually opened numerous other areas of application such as clerical gowns and pallia as well as costumes, uniforms and flags.

The manufacture of such precious wire products has always been one of LEONI's core businesses. These products originally called "Lyonische Waren" in German turned into "Leonische Waren". Even though fashion tastes changed fundamentally in the 20th century and most companies in this branch of industry have long since become history – LEONI is one of the few European makers of finest wire products to have remained active in this field and continues to this day to stick to this highly traditional production.



*LEONI spun threads – as precious and as carefully produced as a piece of jewellery. Now a rarity, this product is created to perfection by us and is all the more precious because our "genuine spun threads" are made from pure silver or pure silver gilt (for more information see page 17)*



GOLD  
24 carats





## LEONI round wire

### The wire for creative ideas

- wire manufacture from top quality copper
- application-specific coatings and alloys
- individual dimensions

#### Requirement

These days wires of all shapes and sizes can be found in a variety of applications within the creative sector. These range from bouquets to decorations to jewellery and works of art. In its finest form, wire is processed in the textile sector to produce bouillon trims or spun metal threads.

#### Our areas of expertise

Wires from LEONI are drawn from top quality copper and, depending on requirements, are produced in a variety of finishes (tin, nickel, silver or gold plated or cemented (coated with brass)). We also produce wires made from copper alloys, such as brass, bronze and nickel silver.

#### Design

For high quality applications we supply precious metal wires made from pure silver, fine silver, sterling silver and silver alloys (also in a gilt version).



GOLD  
24 carats



## LEONI wrap wire for musical instrument strings

### The wire for just the right sound

- wire manufacture from top quality copper and silver
- application-specific coatings and alloys
- individual dimensions

#### Requirement

The sound of an instrument is characterised by a number of different properties. In the case of bowed and plucked instruments, the strings and the way in which they are made play a special role, creating the tone. The wrapped strings and the materials used in their production make a decisive contribution to the quality of the string.

#### Our areas of expertise

LEONI has specialised for many years in the production of spun wires for stringed instruments. We produce our spun wires from specially drawn copper and silver. This enables us to guarantee an absolutely pristine surface that is free of scratches and that has a precise consistency of diameter, something that is extremely important for problem-free processing when making strings.

#### Design

The best quality strings are either made solely from pure silver or we plate our spun string wires in silver or gold and finish them with an extra protective layer.

#### Properties

Diameter from 0.08 to 0.90 mm





## LEONI flat wire (*Lyonese Wares*)

### Top quality wire for trends & traditions

- a tradition in thorough product and production expertise
- high product and processing quality
- multiplicity of designs thanks to application-specific finishes

#### Application

*Lyonese effects* create genuine highlights on clerical vestments for special feast days, uniforms or wedding dresses, and are also widely used in brocades and trimmings or on jewellery and home accessories.

#### Requirement

Flat ribbon is a very fine wire mainly used in weaving and embroidery. It lends precious materials a true shimmer and is also used for intermediate goods, such as embroidered panels or uniform effects. Flat ribbon is also used as the initial material in producing beautiful bouillon and the finest spun metal threads.

#### Our areas of expertise

We manufacture both genuine flat ribbons from pure silver and pure silver gilt, as well as from silver or gold-plated copper. We also produce "uncoated copper" flat ribbons and products with a cement surface (brass-plating).



## LEONI threads (*Lyonese Wares*)

Quality is always a promise

- a tradition in thorough product and production expertise
- high product and processing quality
- multiplicity of designs thanks to application-specific finishes

### Application

Spun threads are mostly used for embroidery, weaving and lace making and are thus pre-products for embroidered panels, uniform effects, embroidered or woven ribbons, trims and braids and for a wide variety of other textile products (including bourdon lace, brocades, tassels and fringes).

### Our expertise

Our ***genuine Lyonese spun threads*** are used in the creation of particularly precious finished products. They are created from a carrier thread (usually cotton), which is wrapped with fine flat wire.

### Design

Spun threads from LEONI are produced as ***genuine spun threads*** in pure silver or pure silver gilt.

In addition, our product portfolio also includes so-called ***Lyonese spun threads***:

These include spun threads made from silver- or gold-plated copper and threads with a cement surface.





## LEONI bouillon & pearl wire (*Lyonese Wares*)

### Creativity and individual requirements

- A tradition in thorough product and production expertise
- High product and processing quality
- Multiplicity of designs thanks to application-specific finishes

*Bouillon is one of the most multi-faceted products in the Lyonese Wares range. The multiplicity of product types and effects are as fascinating and varied as the bouillon end-products themselves.*

#### Application

Bouillon is mainly used for end-products, such as top quality embroidery and uniform effects. Another quite different area of application is sacred art. In this case, bouillon is worked to a professional standard by enclosed religious orders or even by ambitious amateur craftspeople.

In the final analysis, there are myriad ways to decorate things using bouillon. These can range from candlesticks and spiced nosegays to fashionable bridal wear.

#### Our expertise

LEONI bouillon is produced from our high quality copper wires in both round and flat versions. The many production options mean that this product is available in a wide variety of versions and finishes (smooth high sheen, smooth matt, curled high sheen or matt high sheen).

We determine the form by means of pins which are inserted during the manufacturing process. The strength and stability of the bouillon is influenced by means of the diameter of the wire used.

Our pearl wire are a very special kind of bouillon. In this variant, flat ribbon is formed in a special manufacturing process to produce an effect reminiscent of a row of pearls.

#### Design

Bouillon – extraordinary colour effects and quality thanks to a choice of individual finishes:

Fine silver, pure silver, silver-plated, gold-plated, brass-coated (cement) or lacquered (coloured or colourless).



## LEONI metal glitter

Eye-catching & top-class – for an infinite variety of uses

- Attractive highlights can be created with a variety of surfaces
- Using copper as the base material offers enormous stability
- Available in a variety of sizes

### Application

This decorative product is made from fine slivers of flat ribbon and is mainly mixed with synthetic materials for packaging in the cosmetics industry (e.g. lipsticks) and in household goods and decorative items (combs, hair slides).

Metal glitter is also used in decorative lacquers and coatings, for musical instruments for example (e.g. drums). Metal glitter is also used for decorative purposes in flower arranging. It is particularly effective when used in combination with poinsettias.

### Design

We can supply a wide range of particle sizes and colours. Just ask for metal glitter.



## Monastic handicrafts

Rediscovering an almost forgotten art form

**Have we aroused your interest?**  
You will find further information in a book entitled "Klosterarbeiten" by Inge Schmidt, which looks at the handicrafts traditionally associated with enclosed religious orders and which can be acquired by purchase from us.\*

It contains extraordinary large-scale photos that are particularly suitable for copying or as inspiration for your own ideas and designs.



\* almost sold out

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