

STEIFF CLUB



# club magazine

PRODUCED FOR STEIFF CLUB MEMBERS



*Bears – unadulterated pleasure*

*From thread to plush –  
100 years of Schulte mobair*





## From thread to plush, or “the stuff that Teddies are made on!”

**R**einhard Schulte GmbH has been producing high-quality fabrics, primarily from natural mohair and alpaca yarn, in Duisburg since 1901. Although the company's main customers are the toy industry and the market for activity toys, the clothing and home textiles industries also play an important role. Schulte employs 80 people and its sales figures for the year 2000 amounted to around 9 million Euro with exports accounting for 45 %.



Paul Steiff (links) und Reinhard Schulte, 1908

*A large number of individual production stages are necessary in order to process such a high-quality yarn as mohair. According to a company spokesman, it is therefore important that the entire production process takes place on its own premises. Schulte is one of few companies in the world to have its own weaving mill, dye shop and all of the facilities required to manufacture its products “under its own roof”. 100% quality made in Duisburg! So how is the “stuff that Teddies are made on” produced?*

### The realm of threads – the warping shop

The mohair yarn is supplied by spinning mills in England and France. The bobbins that come from the spinning mills are small and easy to handle. Each one weighs around 2.5 kg, but they are completely unsuitable for large power looms. The yarn from the small bobbins is wound onto a large bobbin (“warped”) in the warping shop.

This large bobbin is referred to as a loom beam. The loom beam can be used on a power loom and weighs an impressive 500 kg. There are up to 6000 threads wound next to one another on this beam and if they were all tied together the overall length would amount to 10.2 million metres. Once wound onto the beams ready for the next stage in the production process, the mohair yarn then goes into the weaving mill.

### Every shot a winner – the weaving mill

The deafening noise from the power looms can be heard miles away. All of the weavers therefore have to wear ear muffs. The special feature of mohair yarn is its three-dimensionality, i.e. unlike “normal” flat woven fabric which is made of two threads referred to as warp and weft, plush fabric also has a third thread, the “pile”. The pile thread is what turns mohair plush into a napped, grippable fabric. Special machines are required to weave plush fabric. Schulte's power looms are called “grippers”. Although the name sounds rather dangerous, it merely refers to the way in which a thread is drawn through the weaving machine from right to left. The warp yarn is prepared in the power loom as the first stage in the



Warping shop with yarn beam

weaving process. The warp threads are all arranged next to one another waiting to be transformed into woven fabric. The warp threads are then raised and lowered so that the weft thread can be shot between them. This is also quite harmless and has nothing to do with James Bond, but it's still very interesting and exciting! You see, this is where the gripper comes into its own. It grabs hold of a weft thread or shot, pulls it through the warp threads as far as the middle of the loom, where another gripper takes over and pulls the thread towards itself. The pile thread is woven in at the same time. The entire process takes



In the weaving mill





**The loom**

place in a flash. A Schulte gripper manages “9,600 shots per hour”. This explains why it’s so loud in the weaving mill.

Two fabrics are always woven simultaneously. This system is referred to as the upper and lower works. Soon after completion of the weaving operation, the fabric is cut down the middle and the two webs are wound up separately at the loom. This terminates the weaving process and the loom-state fabric has been produced. Work’s not over yet, though, by any means! Weaving is a purely mechanical process and can hardly be influenced at all, whereas the fabric has to go through the dye shop and the finishing plant before being given its final appearance.

### **No black looks in the dye shop**

Having passed the first quality inspections – checking weight and flawlessness – the white loomstate fabric then goes to the dye shop.

There are enormous dyeing tubs on either side of the aisle and steam produces thick clouds of mist that make it difficult to see anything in the room. Large winches rotate in

the tubs, ceaselessly pulling the fabric through water baths that have dye added to them. Thousands of litres of water are needed to dye a 30-metre length of mohair fabric. The winches continue turning for 4 hours, pulling the fabric through the dye bath again and again until the fabric has been completely saturated by the dye which is now fixed in the fabric. Previously mixed with dye, the water in the bath is almost clear again. Although the large winch dyeing machines are capable of accommodating 6 lengths of material, the smaller winches that can take just one or



**In the dye shop**

2 length of fabric are becoming increasingly popular. After all every discerning Teddy would like to have his own personal note. Schulte specialises in dyeing mohair plush in lengths as short as 30 metres, which means the company can comply with the special wishes of its customers. There is no limit to the diversity of colour. The current number of recipes for different colours exceeds 2,500 and new shades are added almost every week. All dyes are guaranteed free of formaldehyde, they are colour-fast and fast to saliva, of course, as well as being absolutely safe in ecological terms, which means that they are completely safe in the hands – and mouths – of children.

### **The final touch – finishing**

Once the fabric has been woven and dyed to the desired colour, the highly intensive precision work begins to give the material its final touch. The mohair fabric is brought to life during this final stage.

The mohair has to undergo more than 20 different finishing operations before earning the title “Original Schulte Mohair”. The challenge of creating a really good mohair plush is therefore found in the finishing. The fabric is ironed – to make it supple, cropped (levelled) – to make sure that all of the fibres are the same length, napped – to open the fibre and make the fabric dense, dried, batted, dressed – to ensure that Teddy keeps his coat even when he gets older, stretched and dampened – and all of these operations are repeated several times!

Apart from these standard procedures, there are a number of variations in the finishing process that are beco-



**Finishing machines**

ming increasingly popular. After all, Teddy bears also want to be fashionable and follow the latest trends. Machines that have been custom-built for Schulte are capable of producing special surface structures, such as wrinkling, ratinée, tipping, wave and whirl effects, curly, antique or felting. But the following rule applies here: “buy-

ing a piano doesn’t mean being able to play one”. Such high-quality mohair fabrics can only be made by members of staff who know the machines and fabrics inside out, who are real masters of their craft and have the necessary instinctive feel for their work. At Schulte, the supreme rule is therefore to train and look after loyal, experienced employees in order to be able to meet the stringent quality requirements in the future as well.

When the finishing touches have been added, the fabric goes for a finished goods inspection. The fabric is inspected over an illuminated panel, metre by metre, to ensure that only flawless materials leave the premises with the “Original Schulte Mohair” seal of quality.



**Quality control**

Schulte intends to make sure that its fur stays in fashion so that Teddy bears will continue to feel happy and comfortable in the future.



# Dear Steiff Friends,

A well-known Duisburg company, Reinhard Schulte GmbH, is celebrating its 100th anniversary this year.

Margarete Steiff GmbH would like to take this opportunity to offer its warmest congratulations and looks forward to continuing the harmonious co-operation in the future. According to documentary evidence, the business relationship between Steiff and the Schulte pile fabric weaving mill goes back as far as 1904. There is a letter dating back to this time, that Margarete Steiff wrote to Reinhard Schulte, who founded the company in Duisburg in 1901. This means that mohair plush was already being produced industriously in Duisburg when the Teddy bear first saw the light of day in Giengen in 1902. We would like to pay tribute to the fruitful co-operation with one of Steiff's most long-standing suppliers in this issue of the Club Magazine. Read more about the "stuff that Teddies are made on" on the following pages.



Apart from this, we will be carrying you off to the dream world of Ludwig II, inviting you to discover the new Steiff Club Internet pages and to listen to what a passionate bear collector has to say.

Summery regards

*Inge Zinnecker*

Inge Zinnecker · Steiff Club Manager

*The Steiff centenary Teddy bear "Reinhard".  
As a special edition to celebrate the 100th anniversary  
of Reinhard Schulte company in 2001:*



## CERTIFICATE

In 1902, Richard Steiff, a nephew of Margarete Steiff, designed the first jointed Teddy bear. Mohair plush is an integral component of Teddy bear design even today. Now a bear is being offered in honour of the company that has manufactured the plush for Teddy bears for exactly one century: the Reinhard Schulte company, now celebrating its 100th anniversary.

The friendly partnership between Schulte and the Margarete Steiff GmbH is also exactly one century old. The founders of the two companies, Margarete and Reinhard, worked together very closely, and Schulte is Steiff's mohair supplier even today.

The Teddy bear owes his name to the company founder himself: "Reinhard Schulte". Like his namesake a hundred years ago, Reinhard the bear exudes character and charm. But his "cheeky" demeanour also shows that a company such as Schulte didn't always have it easy during the past hundred years and that reaching a ripe old age means keeping the eyes trained forward.

Lovingly crafted by hand, this 35 cm Teddy bear is made from the world-renowned "Original Schulte Mohair". He comes in green, the company's signature colour, which symbolises the natural composition and 100% environmental compatibility of mohair as material. The Schulte seal of quality, which the bear proudly wears around his neck, confirms this pledge.

*Since more than 100 years  
your competent partner for Teddy plush*

**Reinhard Schulte GmbH**

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