



# Steißf Schulte

Webmanufaktur



The marvelous history of teddy bears began in the early 20th century.

Every teddy bear fan knows that Richard Steiff invented the teddy bear. But what would have happened if he hadn't found any woven fur in 1902?

Thankfully, Reinhard Schulte founded the Schulte weaving mill in Duisburg in 1901. Ever since then close personal and friendly ties have existed between the two companies. It came as no surprise when the Reinhard Schulte Company joined the Steiff family and changed its name to "Steiff Schulte Webmanufaktur" (Steiff Schulte Woven Manufacturer) in 2009.

For many decades, experts have considered Steiff Schulte to be "the Mecca for bear manufacturers from around the world." This name has become synonymous with high-quality woven furs. To this very day, Steiff teddy bears and "Original Schulte Mohair" jointly guarantee the ultimate in teddy bear quality.



Paul Steiff (links) und Reinhard Schulte, 1908

The long tradition and expertise developed over many generations make it possible for Steiff Schulte to produce fabrics that make the hearts of every teddy bear manufacturer, crafter, artist, and collector beat faster.

Steiff Schulte is one of the few textile companies in the world to combine a weaving mill, a dye works, and all equipment at a single location, producing "under one roof" in Duisburg. The highest quality, 100% made in Germany.

Be sure to look for the green woven edge, because this is the only way to guarantee that the fabric is Steiff Schulte woven fur.

Teddy bears made from Steiff Schulte fabrics are valuable companions as we head into the future. They are partners we can always rely on.

So how is "the stuff that teddies are made on" created?

## From thread to plush, or "the stuff that Teddies are"

### The realm of threads – the warping shop

The mohair yarn is supplied by spinning mills in South Africa and Italy. 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 400 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 earmuffs. 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 weaving process. The warp threads are all arranged next to one another waiting to be trans-



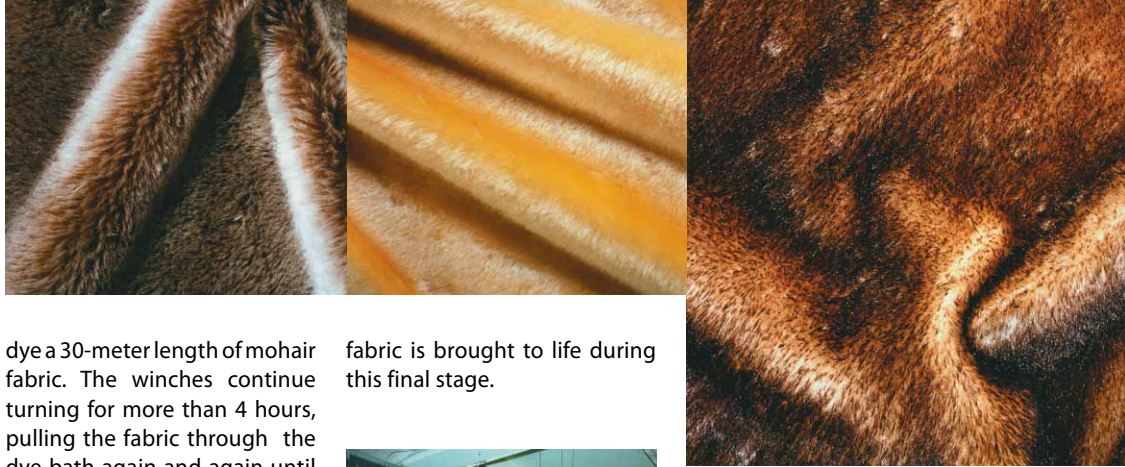
Warping shop with yarn beam

formed 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 place in a flash. A Steiff Schulte gripper manages "7,800 shots



In the weaving mill

*made on!*“



*The loom*

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 loomstate 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 dyeshop**

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

There are enormous dyein 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-meter length of mohair fabric. The winches continue turning for more than 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 1 or 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 6,000 and new shades are added almost every week.



*In the dye shop*

In the labs of Margarete Steiff, the fabrics are constantly checked for formaldehyde, color fastness, and saliva resistance in accordance with the standards for toys. This also makes them absolutely ecofriendly and completely safe for 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.



*Finishing machines*

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 mohairplush 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 becoming increasingly popular. After all, Teddy bears also want to be fashionable and follow the latest trends. Machines that have been custom-built for Steiff 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: “buying 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 Steiff 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.

Once the final touches have been made, the finished product heads to the final quality inspection.

Every meter is examined and inspected using a light panel so that only flawless fabrics leave the building bearing the “Original Schulte Mohair“ seal.

To ensure that teddy bears continue to feel good in the future, Steiff Schulte wants to make sure that its furs stay in fashion!



*Quality control*



# ... *luxurious fabrics* "Made in Germany"



Mohair goats

## **More than 100 years of choice handcrafted art**

More than 100 years of experience with the production and processing of natural woven fur has made us one of the leading weavers of finest natural hair fabrics in the world.

An essential element for the design of high-quality teddy bears is still the mohair fabric used. However, fine alpaca hair is enjoying ever-increasing popularity.

Most significant of all: No animal suffers or dies in the manufacture of the fur.

The following describes why fur fabrics made from mohair and alpaca are so fine and of such a high quality that any teddy bear would be delighted to sport such fur.

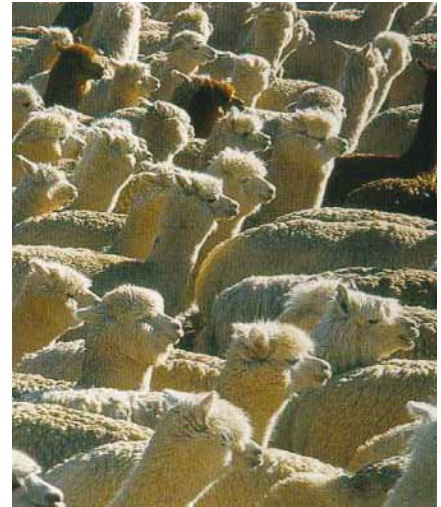
## **Mohair - A sense of safety and well-being somewhere between heaven and earth**

The first inhabitants, who lived in the Himalayas, regarded the Angora goat as a heavenly creature that came down to them from the clouds. And to this day there still lingers a remnant of this mystery surrounding the history of this natural fibre.

The unbelievable properties of this fine and exclusive fibre are indisputable. They are the sum total of a development in which nature has been involved for thousands of years. Nature is feeling. You have the sensation of holding something precious.

Mohair is nature and to a certain degree fulfils a yearning always with a continual promise of more.

Quality to life. It has a long life span, is naturally barely inflammable and retains its elegant silky sheen for many years. Mohair has everything that an exclusive fibre requires.



Alpaca herd

## **Alpaca - Inca Gold**

As early as the Inca era, the rare and highly sought after precious hair of the alpacas was measured in terms of gold. The rare animals live in the mountain valleys of the Andes at heights of up to 4,000 meters. In order to protect them from the radical changes in temperature between day and night they possess a light and extremely robust coat. Due to its exceptional properties, alpaca hair ranks amongst the finest and most exquisite forms of raw textile material offered by nature. It distinguishes itself by being particularly fine, having an extremely long fleece, which is slightly wavy and exceptionally soft. The herds are carefully shorn by the Indios only once every two years and this is done by hand. Only the best raw materials in unadulterated natural colours are suited for the usage in the specialised spinning mills from whom we purchase our alpaca thread in order to make them into the most exquisite woven throws for our fabric collections.



# Steiff Schulte

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