



LEATHER FINISHING: A FINE-GRAIN SOLUTION!

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In the leather goods world, which is very clearly driven by the luxury sector, excellence means selecting exceptional raw materials, but also respecting them during the process of turning them into high-quality consumer goods. It is buffing - sanding in effect - that gives each skin its final look and feel, whilst preserving its distinctive natural grain. Buffing is an extremely delicate step, which, for example, gives nubuck its characteristic velvety finish, as Marie Hiriart Carriat, CEO of the famous tannery of the same name explained when she talked to us for this special newsletter dedicated to the leather industry.

At Ahlstrom-Munksjö, we are constantly pushing back the boundaries of innovation. This is how we have come to develop a special technical range to meet all the requirements of the leather processing industry, correction to finishing. Among other things, you will discover Smooth UB, the new generation ULTRA barrier-coated abrasive backing. And like leather that comes in a multitude of colours, our solutions are now available in a rich variety of shades, which have already demonstrated their relevance on other markets. They represent an aesthetic and marketing advantage that can also provide a solution to blotching, in particular on fine grit papers. If you want to offer products that are as effective as they are differentiating, contact us: we've got it under our skin!

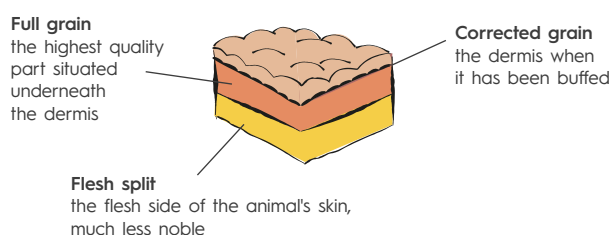
Estelle Seibert
Marketing manager



THE LEATHER PRODUCTION PROCESS

A permanent fixture in the clothing and furnishing worlds, good quality leather is particularly prized for luxury shoes and leather bags and other items. The manufacturing process is a very demanding one and merits a closer look.

Non-exotic leather is made from animal skins and is therefore a way of recycling an animal by-product. These skins are made up of the epidermis, the dermis and the hypodermis, which consists of adipose tissue. The dermis has three layers, which define different qualities of leather:



First of all the skins are cured with salt to remove the water from the tissues and halt the development of micro-organisms, then dried. 15 days later they are examined and sorted according to various criteria (thickness, blemishes, weight, surface, etc.) before being entrusted to the **tannery**, which will put them through a 5-stage process to bring out all their nobility and beauty:

1 Beamhouse operations

The different steps in what are known as beamhouse operations - the steps between curing and tanning - take place in a succession of enormous drums. After **soaking** (rehydration) and **cleaning**, unhairing and fleshing, the skins undergo bating, a softening process to prepare them for tanning.

DID YOU KNOW?

TANNER OR FELLMONGER?*

- › The **tanner** works with larger, rougher skins (calves, young cattle, cows, young bulls, bulls, buffalo).
- › The **fellmonger** prepares smaller, finer skins (lamb, sheep, goat, ostrich). The word derives from the Old English "fell" for skins and "monger" meaning a dealer. The French term "mégissier" refers to the bath the skins were soaked in.

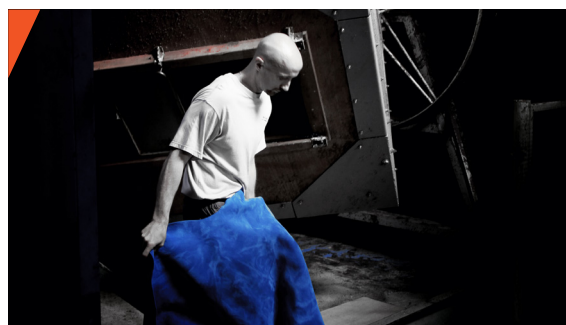
* Learn more about the industry and leather on the French Tanners Federation's website: <https://leatherfrance.com>

2 Tanning

Using **tannins**, which are substances containing vegetable or mineral salts or a combination of them, the skins are transformed into **rotproof leather** (i.e. which cannot decompose), which is resistant to hot water and has a low water content.

3 Dyeing

The skins are dyed **wet** in large drums. The leather is also **fatioued** to give it suppleness and strength.



Nubuck coming out of a "turbulent"

4 Dressing

The dyed leather then undergoes **setting-out** to stretch it and **drying**, before being sorted for quality. It is also at this stage that leather can be **buffed** to obtain nubuck.

5 Finishing

This stage consists of **colouring the leather surface** to give it its final appearance. Different methods are used, which will impact the quality of the finished product:

- › After being coloured by immersion in a dye bath, **aniline leather**, which has a fine natural finish, does not undergo any surface treatment. It is a leather that lives with its user.
- › **Semi-aniline** leather is covered with a slightly opaque layer of pigment and another layer of translucent material, which masks minor defects and harmonises the colouring.
- › Leather with a **pigment finish**, is sprayed with pigment, making it easycare and insensitive to water.
- › For **corrected grain** leather, pigment is applied to skins that have been buffed (sanded). This is a way of "re-creating" a grain finish.



Rémy Carriat's skin storage

MEETING WITH MARIE HIRIART CARRIAT, TANNERIE RÉMY CARRIAT

Renowned for its expertise in dressing and finishing, the Rémy Carriat tannery uses buffing in a very targeted and demanding way. CEO Marie Hiriart Carriat explains.

What types of buffing do you practise?

- There are two types of buffing, or sanding, depending on what you want to achieve. First of all you can sand the leather to correct or remove the grain, especially when the initial quality of the skin is not good enough, or in order to obtain a uniform pattern and eliminate certain blemishes, hence the term "corrected grain". This operation is a less qualitative operation as it implies that the raw material used was not of the highest quality. Then there is what we call "sublimation buffing", which is considered essential to give the leather its optimum aesthetic quality: in fact this is the only type we practise. The grain is buffed lightly to create a nubuck finish: this gives the leather a velvety appearance and makes it soft and silky to the touch.



Carriat nubuck

1927
RÉMY CARRIAT
TANNERIE

A family firm founded in 1927 that now employs 70 people, the Rémy Carriat tannery is perpetuating a tradition of producing exceptional leather from young bull and buffalo hides. Saddlery items, leather goods, shoes, furniture: the firm makes 35% of its sales on the export market with internationally renowned brands.

> www.carriat.com/fr

TRENDS: THE MARKET GOES UPMARKET

The leather market is booming: the trade balance of the French industry went into the black for the first time in 2018. While France is tending to move towards more affordable products, demand for high-end items is increasing on the international market (Italy, Hong Kong, the United States, China, etc.)* A trend confirmed by the Rémy Carriat tannery, which is making more and more custom products, in a remarkable range of colours, textures and finishes.

How do you go about this buffing process?

- We are extremely rigorous in selecting our skins and we only sand them to get the desired finish. This buffing process takes place in a single pass. We use very fine grit (P240) to skim lightly over the grain, which acquires the characteristic pile of a fine nubuck. Only the surface is cleaned, which ensures the leather retains the beauty and finesse of its natural grain. The skin can then be hot-stamped to obtain visual effects, wrinkles, holes, perforations, etc. - the possibilities are endless!

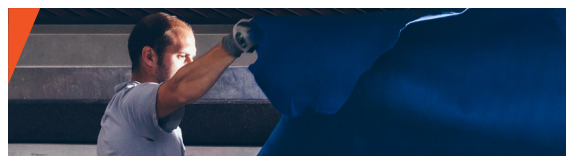
Creating nubuck, step by step

- Selection of hides purchased at the "wet blue" stage.** Wet blue leather is leather that has been mineral tanned, but not yet dyed or fatliquored
- Fatliquoring** of the skin with animal and plant oils to make it supple and soft
- Dyeing** by immersion in dye baths in rotating drums, which guarantees deep, bright colours



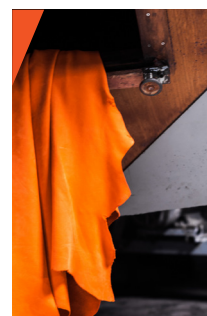
Hides after dyeing

- Dressing of the skins** to increase their resistance in use



Sammying to remove water

- Buffing** using a cylinder with a strip of very fine grit sandpaper. The entire hide is treated in a single pass, before being sent back to the dyeing shop to remove the dust and ensure the colouring is uniform. It can then be hot-stamped and softened again in a large rotating wooden box, known as the "turbulent".



A hide in a "turbulent"

* Source : Les Echos - 12/03/19

CORRECTING & FINISHING LEATHERS: BARRIER COATINGS FOR ALL SORTS OF SIZING!

The leather market will soon be able to take advantage of an even fuller range of Ahlstrom-Munksjö solutions with a paper that combines a reinforced barrier with possibilities for customisation.

Our Green Line has for many years included two backings specially designed for sanding leather. To meet the requirements of this very specific application, they combine an even structure and a smooth, flat surface that facilitates the **even coating of sizing and fine grits**. They are specially formulated for the types of binder used.

- ▶ **Smooth** has a relatively porous structure that particularly facilitates the penetration of the **aqueous gelatin**. Ideal for both wide and narrow belts, this highly cohesive backing also offers a surface worthy of a writing paper.



- ▶ **Smooth SB** is characterised by its smooth, regular "super barrier" coat. It allows **perfect control of the penetration of the resins, even the most aggressive ones** such as phenolic resins or all the ones containing solvents. In addition, this backing still offers **excellent flexibility** after processing.



Smooth UB: the new generation ULTRA barrier coating for an even more perfect appearance

Ahlstrom-Munksjö has reformulated Smooth SB to create a **new generation of even more consistent barrier coatings**. Thanks to this optimised structure, Smooth UB improves the finish of the abrasive backing paper, reducing the marbling effect even further. **User perception of a high-quality product** is therefore enhanced.

Another advantage of this new backing, which comes in grammages ranging from 180 to 400 g: it will be available in a **range of through-dyed colours from Ahlstrom-Munksjö World of Colors** collection. 5 colours are currently available in three different intensities: black, yellow, violet, red and blue (other special colours are available on request). Ideal for creating a value-adding finish with a transparent resin, these brand new colours are just crying out to be matched with the colour of the binder, which helps to **limit the visual impression of wear**, boosts product longevity and increases its perceived value.

With this new innovative reference, Ahlstrom-Munksjö is preparing to expand the range of possibilities for abrasives dedicated to leather even further... As Francis Poirot, Product Development & CTS Director, explains, *"the advantages of these solutions can also benefit other markets - take Smooth SB, for example, which is also used for sanding varnished wood."*

PRACTICAL

Are you looking to develop distinctive products for leather applications?

Contact us to get A4 samples of the Smooth, Smooth SB and Smooth UB backing papers for fine grit. Suitable for gelatin or resins depending on the paper reference, they maintain exemplary flexibility. **With all those advantages, they certainly deserve to be given a try!**



THE VISION

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STORING THE PAPER: CARE REQUIRED!

Like any paper, an abrasive backing is a material that reacts to the temperature and hygrometry conditions of its environment. To guarantee optimum use, it is essential to limit the impact of external factors.

WHAT PROTECTION DO AHLSTROM-MUNKSJÖ PAPERS HAVE?



When it comes off the production line, the paper has an ideal moisture content: 6% for a heavyweight paper and approximately 2% for a latex-saturated paper. If a latex-saturated paper, for example, is then confronted with excess humidity, it will become sticky and tend to wrinkle. In too dry an environment, it will be less flexible and risk becoming "brittle" and subject to puckering.

To optimise their storage, Ahlstrom-Munksjö wraps its papers and composites in dual packaging:

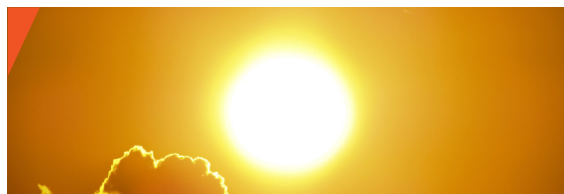
- a hermetic plastic that protects against external climatic variations;
- a complete cardboard pack (external wrapping paper, corner reinforcements, heat-sealed discs and flanges) to protect them against knocks.

HOW SHOULD THE ROLLS OF PAPER OR COMPOSITE BE HANDLED AFTER THEY ARE RECEIVED?

It is recommended that the rolls be kept in their original packaging and they only be opened a little while before using them. Although they must be opened long enough in advance to acclimate the paper to its environment.

- Ahlstrom-Munksjö's CTS expert can advise you on the best practices depending on your maker's environment.

How should an open roll be kept?



If it has not been used in full, it is indispensable to put the roll back in its full original packaging - which you will have removed with care specifically with this in mind.

TIPS

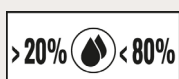
3 REMINDER PICTOGRAMS ON ROLLS

To improve the use and storage of its products, which both have an impact on the quality of the processed papers, Ahlstrom-Munksjö has added some pictograms to its rolls to remind you of their optimum storage conditions:



Ideal storage temperature:
between 5 and 35°C

Repack the rolls
after use.



Ideal humidity level
between 20 and 80%

CUSTOMISED TRAINING FOR OPTIMUM PAPER HANDLING!

Raising awareness of how to store papers is essential. To get the most out of our backings, take advantage of Ahlstrom-Munksjö's unique body of expertise, thanks to our special training module, "Paper and its temperature and hygrometry environment". Do not hesitate to contact us to organise a training workshop at Arches or on your company premises.

The training covers:

- The influence of the environment on paper
- The influence of the environment on abrasive backing paper
- The relationship between the climatic conditions and the use of abrasive papers
- The parameters that can be controlled and adjusted by the abrasives manufacturer



WORLD OF COLORS COLLECTION: DISTINCTION GUARANTEED FOR HEAVYWEIGHT PAPERS!

Creators of the very first coloured latex papers some fifteen years ago, at the beginning of 2019 Ahlstrom-Munksjö embarked upon a similar revolution when it launched its *World of Colors* collection, which has been a resounding success. Its heavyweight papers are now available in five original colours in three different levels of intensity, thereby opening up new differentiation opportunities for abrasive papers.

Blue

► To take advantage of the colour of success

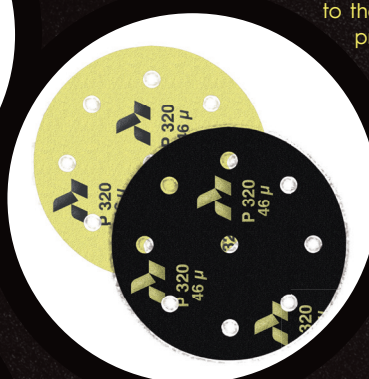
Widely used in industry (e.g.: latex papers in the automotive market), blue is a vector for innovativeness and provides an opportunity to take advantage of this positive connotation. Ahlstrom-Munksjö has thus capitalised on this colour, using it to distinguish the flagship products on the cloth market and to highlight the technical nature of TEX-STYLE™, its innovative backing designed as a substitute for cloth.



Yellow and black

► To highlight printing

With its appealing brightness, the yellow in the *World of Colors* collection is an invitation to create attractive contrasts. Applied to the backing, it will make black printing stand out and heighten its impact. Likewise, the visibility of a white or fluorescent yellow motif or message on a black background will be enhanced. Ideal to highlight a logo, some key information, safety instructions or instructions for use



Dark coral

► To limit the signs of wear

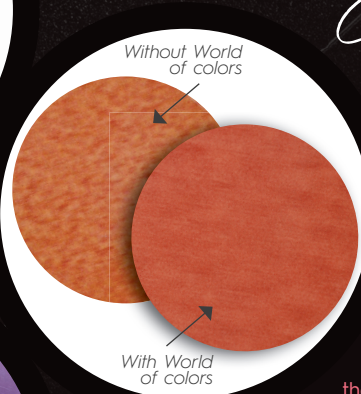
On the top side of the backing, combining a through-dyed paper with resin of the same colour has the advantage of reducing the visual impact of the first signs of wear. In addition, on the underside, the more intense the colour, like graphite, the less the marks left by the sanding pads will be visible. A real aesthetic advantage!



Coral

► To improve the visual effect

Evenly laying fine grit, which is constantly getting finer and finer (down to P8000 compared to P1200 30 years ago), requires a backing with a flat, satiny surface as well as an even structure and a smooth barrier coating. For optimum results, a backing will be combined with a resin of the same colour to give the abrasive a more homogeneous and distinctly more qualitative appearance and reduce the blotching effect.



Violet

► To show originality

A singular colour like violet, which immediately stands out as different to the classic colours, emphasises the value added of abrasives and distinguishes them from the rest of the pack on the market. Thanks to Ahlstrom-Munksjö's expertise, the backing can also be customised to reproduce a dominant colour in a graphic identity, such as here the violet in our group's logo. And into the bargain, great visual coherence and easier identification.



Find here the video
World of colors

