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NEWSLETTER FROM THE FUTURE OF TANNING



The game of possible alliances The colours of Italy in this country

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focus On

LeatherZone in China.

The enormous success achieved by **LeatherZone**, together with an important event like the 18th **Shoes&Leather Guanzhou** fair, have inspired us to publish a special edition of our magazine. Thus was born **LeatherZone "ChinaEdition"**, the first issue dedicated to China and its rapidly growing market. **LeatherZone "ChinaEdition"** gathers the best of all issues of **LeatherZone** published to date and acts as spokesman for the best products that have resulted from **ChimontGroup's** "Advanced Research". This issue represents an important occasion for communicating to China the values of the Italian group, which believes in its own work and dedicates itself with passion to the innovation of processes and products for the tanning industry. A group that believes in collaboration as the source of new possibilities, for itself and for the partners with whom it works in close synergy. **LeatherZone "ChinaEdition"** is our attempt at gathering the best of "Made in Italy" and the prospects for growth that Italy can offer to the Chinese market.

Remo Petroselli
ChimontGroup
general manager

ChimontGroup fly to China.

Shenzhen Technik Universal LTD

The venture into the Chinese market by ChimontGroup was started in 2006. China Market illustrates a number of challenge for ChimontGroup that we can say has having a great success after only 2 years of our entry in this market and we believe this is only the start of a good and profitable relationship among ChimontGroup, our exclusive agent in China “Shenzhen Technik Universal LTD” and, last but not least, our valuable Customers.

Thanks to our Company philosophy to share with our partners all the information and experience coming from our R&D laboratories and decennials experience maturated directly in the leather Italian field working daily with tanners, and designers, we really want improve the work of our Customers making their own business more attractive and competitive. On the light of the facts, we are seeing as in China the rise in incoming and living standard has increased the per capita consumption of many items, this means that not only can Chinese consumers are much more interested in new technology, new chemicals and fashionable articles, but are willing to, in order to increase the number of alternatives that are available to them.

Nowadays the consumers in China are demanding quality and variety in the leather chemicals they buy and ChimontGroup is more than happy to cooperate with them to fulfil their needs. In order to satisfy all the exigencies of our Customers spread around China, we have a really good team of qualified local and overseas technicians, as well as a good sales network. We are present with warehouse in Shenzhen, Guangzhou, Xiamen, and Shanghai. We strongly believe that ChimontGroup with our “made in Italy” together with “Shenzhen Technik Universal LTD” can find an high and successful position in the coming years.



Chimont's foot-prints in China

1. China Today:

Scaled Tanner's today increased up to nearly 800. 70% are local investment. Employees more than 200 can be called scaled Tannery. There are of course more smaller scale investment which can be thousands. Production of leather from these scaled ones already reached 700,000,000 sq.m.yearly and valuing 80,000,000,000 RMB. China has her own raw hide and skin resources. At the same time industry also imports raw materials about 20,000,000 tons years. No matter export market and local market, request on quality is higher and higher. More advanced technic and up-dated fashion are in demand any minute in this market.

2. Chimont's Task and Chance

Chimont being one of Italy's modern and progressive chemical company focused China at this moment. The moment which you really work on it and make the task is always the right moment. It is never too late. Chimont's strategy is to service right thing to right place and at right moment. This relies vary much on good relationship, wide net work, well informed and strong technical back-up. Chimont is always booking for tailor-made programme to enter this market and serve the customers inside.

3. Tannery Map and Weather

Geographically China has areas working on different kinds of animal hide & skin. Also areas producing different arts of leather. There are areas concentrating in wet-end process and also cities focusing in fashionable finishing procedure. Fashion trend can move from one end to another. Consumer's manner can alter from season to season. With a proper map, you cannot get lost. With an up-dated weather report, you can always go out safely. Map and Weather report for China's tanning industry are well placed on Chimont's office desk and updated from time to time.

4. Watch and Walk

Marching to the future, Chimont has her direction and depth. In certain area, wet-end products and process are more introduced. While in some other part of the country, fashionable finishing are highlighted. Products helping to treat wet-blues evenly and more tender, Chimotan FKS is well accepted. To achieve full, firm and soft crust, customers already recognize Chimotan JB and Chimoil E4, No.7 pull-up oils, burnish wax and cationic system are also general being used. Finished leather treated with Chimont products already occupies its position in leather shop'Glanzluenster S shelves or shoe shops' show window quietly.

5. Many steps to go

China is a big country. Tanning industry here is complicated. Chimont has many many steps to go further. Direction is definite however. Chimont knows exactly the future is for cleaner production. The future is for added-value products. The future is for variety and flexibility. All these shall be happened especially in China. With Chimont's technical know-how and exploratory spirit, the future is fruitful and successful.

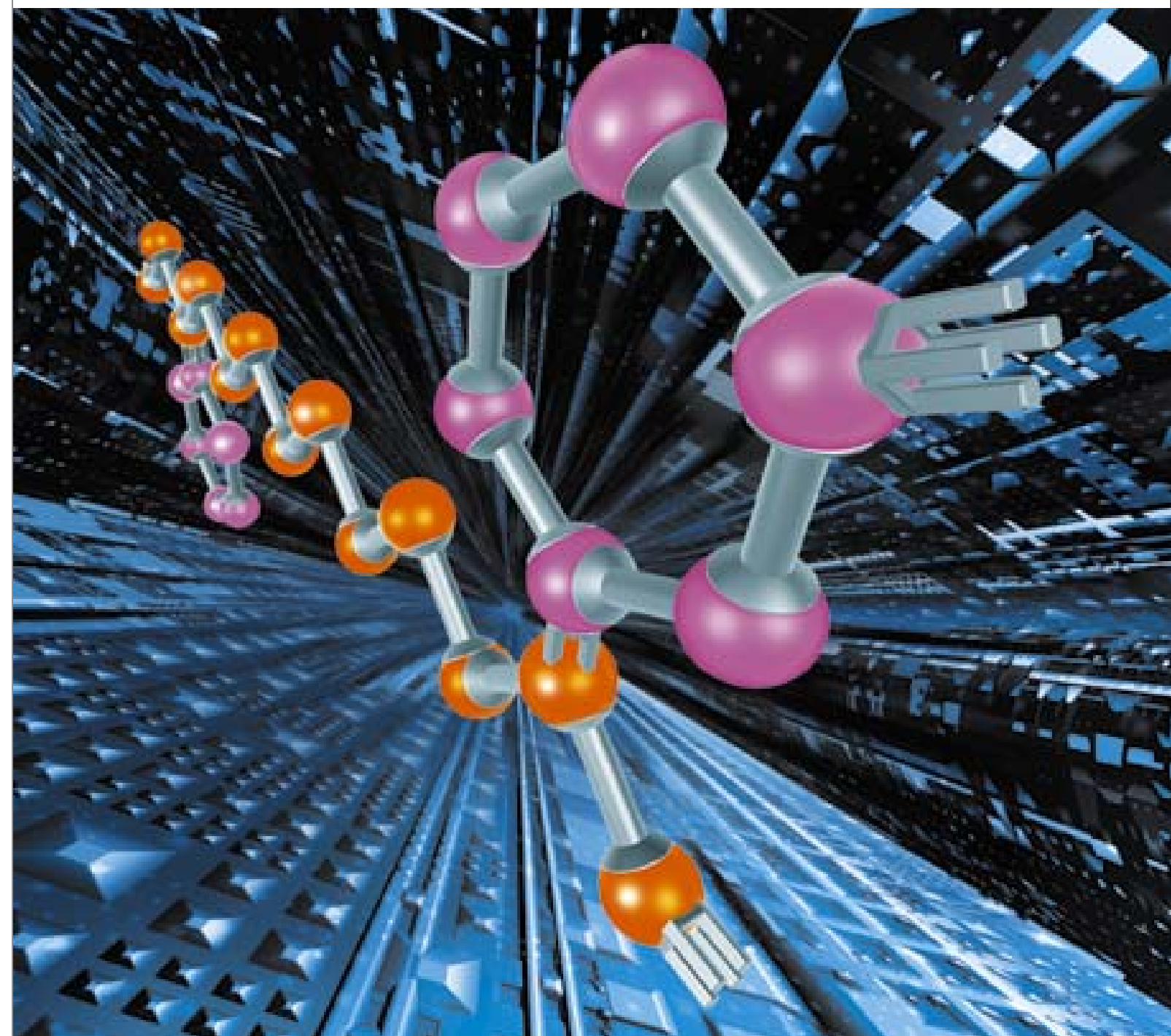


J Line, The new tanning molecule

Chimont launches a real innovation for the world of tanning

The discovery of the new tanning molecule, **J Line**, is the result of a research project entitled **Project J**, promoted by Chimont International Spa, the objective of which was the identification of a new tanning composition that is not only extremely simple to apply, but would also contribute to the improvement of the quality of waste water from the tannery, and permit the realisation of finished articles of the finest quality as well. This research, conducted in collaboration with the Faculty of Chemistry of the University of Pisa, comprises a first phase of general study of the chemical-physical aspects of the substance, and a successive phase of applications and verification of results achieved on leather. Chimont, in addition to contributing its own know-how during the first phase of the project, optimised the results achieved and transferred them into processing technology for the tanning industry. In fact, the new product was intended to guarantee the optimum performance in retanning the leather, but at the same time it could not contain any

composition that was held to be toxic, such as metals and aldehydes, and it had to have a very low content of free phenols. These chemical properties are fundamental today in order to produce leather whose non-toxic characteristics met new market standards. The result of the research is a new polymeric complex that meets all the requirements specified in the project: a new tanning molecule with characteristics that are absolutely innovative with regards to technology, ecology, and economy. The experimentation of this new molecule on leather made immediately evident its great technical potential. Its characteristics result in remarkable advantages for the tannery, in terms of economy of process and of the fine quality of the articles produced. At the end of the project, two molecules were identified, distinguished from one another both chemically as well as in terms of the characteristics that they impart to the finished article. With project **J Line** they were identified with the symbols **JB** and **JW** and were classified



in our series of retanning products called "**Chimotan**". **Chimotan JB** is suitable for chrome retanning of leather destined for shoe uppers and handbags, articles that are full-

bodied, rigid and substantial. **Chimotan JW** is suitable for the realisation of projects with a soft, supple nap for clothing and home furnishings.

Chimotan AX: goodbye to imperfect leather

Chimont proposes a solution to the cases of “rocks” in leather

We call them “little rocks”, all those insoluble salts that somehow remained trapped within the fibres of the leather, and that are found in many wet blue hides. They are small crystals of insoluble calcium, difficult to eliminate during the retanning phase, that strongly influence the characteristics of the finished item. In order to better understand their effects, we imagine them to be little rocks trapped in the fibrous tissue and while this term is not a very technical one, it is very descriptive.

THE PROBLEM

In the wet blue hides that we import, the presence of these salts is very inhomogeneous. Between one production lot and another we can either find a lot, or find none at all.

Among hides within an individual lot that contain these salts, depending on the thickness, we can find some hides that contain an elevated amount, and others with much smaller quantities. It is even possible that, among the various parts of a single hide, their distribution within the derma structure is completely different. Usually the most compact parts present higher concentrations than the spongier parts of the

hide. Additionally, there are cases in which their presence is concentrated on the surface of the hide, just at the top of the grain, and as if this weren't enough, in an irregular manner.

THE CHARACTERISTICS

Regarding the characteristics of these salts, the principle aspects are the following:

- They are insoluble crystals, and it is not possible to remove them during the retanning phase.
- They are very hard, indeed, just like little rocks.
- They are practically inert and therefore they cannot chemically connect with the products that are used during the retanning phase.

Effectively, they physically occupy the space between the fibres and prevent the retanning products, from the colorants to the lubricants to be distributed homogeneously.

EFFECTS ON THE LEATHER

Direct effects

Let's imagine that we have “little rocks”, hard ones, trapped in the derma tissue in a non-uniform way. Because of their physical characteristics, where they



are more concentrated, the leather is harder and flatter, giving some parts of the article a feeling similar to cardboard.

Further, because they are located physically between the fibres, those very fibres can't slide against themselves as they normally do, and so the elasticity of the finished article is reduced by their presence. As regards their effect on the flower, for that same reason it is more rigid and harder, and in consequence more fragile in bending and less resistant to mechanical actions.

Indirect effects

There are really many indirect effects, and in order to visualise them better we will again use the simile of “little rocks” that don't react to retanning products and take up space between the fibres.

Because retanning products are synthetic, vegetal or resinous and do not react with these salts, when they encounter them, finding the spaces between the fibres occupied, they tend to distribute themselves in the unoccupied areas. Their retanning action is therefore prevalent in those areas of the leather where there are no insoluble salts and they can form a chemical bond with the fibres. As a consequence, they will be less effective in the areas that are occupied by the “little rocks”.

All of this will contribute to the non-uniformity of the fullness and structure of the leather.

The lubricants as well will tend to distribute themselves in the unoccupied areas of the leather. Thus the more

compact areas, which already tend to become harder, will be even more so because of the presence of the “little rocks”, in addition to the fact that the quantity of lubricants in those areas will be inferior. Further, since the spongier parts of the leather are those where the presence of insoluble calcium salts is lower, and since the oils will tend to go to unoccupied areas, we will also see the effect of an increase in the blowing of the grain in the flanks because an excess of lubricants will wind up in that very area. This will contribute to the non-uniformity of the softness and elasticity of the leather.

Finally, the colorants will not dye the calcium salts, leading to a non-uniformity of colour on the surface as will as in section. Further, since the calcium salts are white in colour, they will render all tones of color lighter and less brilliant.

In the cases where we want to make our finished articles water-repellent, and given the fact that all the salts present in the leather reduce resistance to water penetration, we can easily understand their effect on the final results: reduction of resistance to water penetration, but above all...non-uniformity of resistance from one area to the next within the same hide.

CONCLUSIONS

Whatever article is produced, in order to make it consistent and uniform it is necessary to eliminate the “little rocks” from within the leather.

THE SOLUTION

Only those who work directly with the processes of beam house and tanning can assure the production of wet blue hides that are absolutely free of these salts and can therefore ignore this problem. On the other hand, for those who acquire wet blue hides from various countries or from tanneries that cannot guarantee a consistent quality of production it is essential that the hides are specially washed before the retanning phase is begun.

This wash guarantees the total elimination of the carbonates that are present without compromising the structure of the leather. The results will be immediately evident and there are really many advantages:

Raw leather

- The ability to acquire wet blue hides from various sources without fear that they cannot be used because of the previous processes used to treat them

Processing

- The general reduction of the quantity of chemical products used for retanning
- The reduction of the quantity of colorants necessary

Waste products

- Waste waters are less contaminated because of the reduction of the products used and the better capacity of products to bond to the leather fibres

Finished leather

- The hides are more consistent and uniform and will not present differences from the wet blues used
- The surface area with problems of blowing is reduced
- The leather, uniformly more elastic, will react better to mechanical operation and as a consequence an increase in surface area is possible
- The elimination of the phenomenon of colour spotting due to the presence of surface calcium salts

- A better uniformity of the structure of the leather between the compact and spongier areas

OUR PROPOSAL

In order to do this kind of wash adequately and without compromising the structure of the leather, we have developed a chemical product named **Chimotan AX**. **Chimotan AX** is a product based on strong organic acids, capable of dissolving the “little rocks” that are found within wet blue hides.

In order not to damage the structure of the leather, **Chimotan AX** has an absorbent effect, and even when excessive amounts are used it does not damage the derma fibre. Because it is totally organic, it acts with the chromium salts as a mask so that it helps to optimise the distribution of the chrome itself in the leather.

SUGGESTION

This technology is very easy to use and the improvements are quite noticeable.

We suggest performing a simple test in your own experimental laboratory in order to see for yourselves just how advantageous this process is.

- Take a whole wet blue hide in which “little rocks” are present
- Cut it into two halves and proceed to retan them as usual
- On one half perform the standard process
- On the other half perform the treatment with **Chimotan AX** and then perform the standard process

When the two halves of the leather are dry, compare them and evaluate the softness, fullness and intensity of colour to see the differences that only **Chimotan AX** can make.

Finimont presents the New **NF-COLOR**

The non-flammable anilines.

The Leather District of Santa Croce sull'Arno has always been a world leader in the leatherworking industry because it has always known how to innovate and renew itself, anticipating market demands and establishing new benchmarks for quality.

One of the objects in the near future will be linked without doubt to protection of the environment, with particular attention to the emission of volatile organic compounds (VOC), as set forth by the Ministry for the Environment (Decree no. 44/16/01/2004), which limits VOC emissions of some industrial activities, and establishes parameters to be respected.

With reference to this decree, the parameter that concerns the tanning sector is that for VOC, because the solvents used most often have a percentage of VOC equal to 100%. For this reason Finimont, ever sensitive to environmental issues, has developed **NF-Color**, a line of non-flammable anilines with a low percentage of VOC, constituted of premetallic colors which can be diluted in either water and solvents and which have a maximum VOC of 45%, as opposed to the 70%-90% of the other anilines now on the market. Finimont has been able to attain this significant result thanks to the reduction, or even the elimination, of relevant percentages of solvents by using solvent-free auxiliaries. The new line of non-flammable colors **NF-Color** is comprised of a vast range of highly concentrated

anilines that are resistant to light, solvents and migration. The shades obtained with **NF-Color** are brilliant and uniform, just as with normal traditional metal-complex colours but with some significant advantages for the tanning industry:

- warehousing in the tannery without problems of quantity or special fireproof environments.
- The absence of particular instructions or precautions on the part of the worker at the moment of use of the product

One of the challenges for the near future of chemistry for tanning consists in maintaining unaltered or to improve the quality of the characteristics of the products, reducing or even eliminating their impact on the environment.

Finimont looks to the future of tanning and the results obtained with **NF-Color** are proof of this.



Chimont and Vegetable Tanning for All

As of today even large industries can vegetable tan leather.

Tanning with natural vegetable extracts has a very long tradition, and is known to all who operate in the sector. Even though they are easy to apply in theory, their use involves processes and steps that are quite labour-intensive, and because of this they are not favoured by large-scale tanneries. For this reason, articles developed with leather that is purely vegetable tanned have always been produced by small to medium sized, specialised tanneries. Chimont International, which has always conducted research in this area, has developed a tanning process that permits the manufacture of vegetable-tanned articles by means of an extremely simple, flexible process, allowing it to be adopted even by tanneries which operate on an industrial scale.

To better explain this process and to highlight its advantages, let's compare the standard method of producing vegetable-tanned leather destined for use in purse-making, commonly known as "vacchetta", with Chimont's innovative method.

– Substituting the "pickling" phase with the "acidification and pretanning" phase (using **Chimotan AC** and

| Standard Process | Chimont Process |
|--|--|
| > Delimiting > Soaking | > Delimiting > Soaking |
| > Pickling | > Acidification > Pretanning > Setting out > Pregreasing > Pressing and shaving > Selection with the possibility of drying the pretanned leathers |
| <i>On Lime weight</i> > Tanning | <i>On shaved weight</i> > Vegetable tanning > Retanning > Dying |
| > Setting out > Pressing and shaving > Selection > Retanning > Dying | |
| > Setting out > Pressing > Dry greasing | > Setting out > Pressing > Dry greasing |
| > Setting out > Hot rolling > Air drying | > Setting out > Hot rolling > Air drying |

Chimotan BRS, a synthetic tannin especially developed for the pretanning phase), the use of inorganic acids and sodium chloride is eliminated, with significant benefits for the quality of the waste water.

– Leathers so treated can be sorted by quality and thickness, shaved and thoroughly dried for long term

conservation. They can also be very easily dried and sent for successive tanning treatments, dyeing and greasing without difficulty.

– Pretanning in this way permits the leather to be used for both chrome and vegetable tanning, allowing the manufacture of finished items that are the same as or better in quality than those obtained by traditional processes.

– The shaving wastes are not contaminated with dangerous substances and so the protein from the skins can be recuperated.

– Because the leather is shaved during this phase, chemical products used for the tanning processes are not wasted, resulting in a very economical process.

– The products used are completely fixed to the leather, resulting in cleaner waste baths with significant advantages for the cost of purifying.

– The leathers are flatter and smoother with respect to those tanned at full thickness.

– It is possible at this point to make a selection of the leathers, so that they can be designated appropriately for their final use. This aspect represents an enormous advantage for the tanner, who can noticeably reduce the number of unused leathers in stock. Here is a summary of the advantages:

– The creation of a stable pretanning that permits a selection of leathers classified by defect and thickness

– Flexibility of process, leathers so pretanning can be

dried and stocked for long periods, including permitting them to be exported during this phase and so that production is completed in other countries.

– The leather can be sorted during a phase that permits the easy manipulation of the leathers and the simple classification of defects. The selection can take place at a point in the process that gives still another chance to decide on a kind of tanning and the kind of item to be produced. Leathers destined for successive treatments are easily dried without resulting in defects during the drying phase.

– Pretanned leathers can also be destined both to chrome and vegetable retanning, permitting the manufacture of products with specific characteristics without altering the original characteristics of the finished leather.

– The process is faster.

– The recuperated shavings are not contaminated by tanning products.

– The quality of the waste water is improved.

– A lesser quantity of chemical produces is required. The vats can be loaded with more hides, thus increasing the production capacity in keeping with the facilities.

– The leathers are generally better quality. Yet again Chimont International, with its products **Chimotan AC** and **Chimotan BRS** has shown that it is able to develop real innovations while safeguarding the environment.



Soft Lack

The new glazed, soft, gummy, glossy and eco-friendly article comes from ChimontGroup.

The keywords that identify the 2008 fashion trends are still luminosity, pearlescence, shiny and enamel effects. Bright, glossy leather as if “glazed” coated. Compared to the previous season the novelty relies on the search for softness and lightness with soft and gummy surfaces free from static finishing and materials. Leathers with these characteristics and with hi-quality standards can only be obtained with excellent products able to match the peculiar production exigencies.

Soft Lack is the product created by ChimontGroup to get those results. Two are the principle products of Soft Lack; **CO/MBR** and **WThane XTop**.

The first is an acrylic polyurethane compound which features are softness and lightness and it's able to grant a very good strength at the same time.

WThane XTop is a kind of polyurethane to be used at the final step in order to get a polished

effect comparable to the one of patent leather only. Its film doesn't jeopardize the natural softened grain of the leather and it results very nice at touch.

Soft Lack is to be used on sanded surfaces and has been expressly studied to preserve softness while keeping lightness and gummy features unchanged.

Soft Lack offers the opportunity to get exclusive features for new fashion purposes and, in addition, requiring water-based products, it doesn't affect the natural softness of the leather and reduces environmental impact with a consequent operating costs reduction. ChimontGroup shows, through **Soft Lack** as well, that fashion can go together with innovation and with respect for environment (still meeting the UNI EN ISO 14001 certification standard requirements), and at the same time, to be more and more competitive from the economic point of view.



Partner of the European Fashion Designer, ChimontGroup every season cooperates with designers and trend setters to fix the new winning posts in the leather fashion field.

Extrema makes work easy

Know-how and products you can trust for “extreme” retanning.

Providing concrete responses to market demands is part of ChimontGroup’s mission.

So is collaborating with their clients to achieve important goals. **Extrema**, the new retanning technique for wet blue hides, is the result of our knowledge being placed at the service of our clients, and was developed to achieve a precise result.

The project

The research project was born of the requirement of some tanneries to modify their retanning processes in order to respect some important work parameters:

- a drastic reduction in time required to accomplish the work, counting the time for retanning from the moment in which the hides are loaded into the drums to the moment when they are taken out;
- no use of pre-mixed compounds but exclusive use of unitary compounds;
- fewer additions of chemical products to the drum by the operator;
- a reduction in the total quantity of water used;

- repeatability of the process and the results obtained;
- manufacture of various articles using the same chemical components;
- maintenance of standards of quality in the articles in production.

The objectives

It is clear that the tanneries’ objectives are many and, in particular, that they want to achieve the following results:

- increase of the productive capacity while maintaining the drums they have (process simplification);
- increase of the power of contracting with suppliers of chemical products;
- reduction and optimisation the stock of chemical products in the warehouse (improved management of procurement and warehousing);
- sure knowledge of the processing chemicals and thus the possibility to change suppliers;
- reduction of the possibility of human error in weighing the products (greater guarantee of the repeatability of the process);

- savings in the costs of acquiring water and of purification;
- reduction of the costs of salvaging hides that by accident are not realised according to a predetermined standard;
- guarantee of a flexible and adaptable process to meet the changing demands of the market (an obvious condition in order to take advantage of the benefits described above).

The result

In order to reach objectives that are ambitious as these, it is essential to have lots of know-how about processes and a range of chemical products that you can depend on, that are compatible with each other, and that don’t contain any hidden surprises, even when used in extreme conditions (this is why we’ve named this process **Extrema**). Further, these products must confer on the leather different kinds of characteristics so that, by modifying their proportions of use, it is possible to realise any kind of article required.

ChimontGroup selected a limited range of retanners, auxiliaries, and stuffings with high-level characteristics, and working on the process by means of a series of systematic trials, was able to realise the base model in the laboratory. Successively the process was optimised with a “pilot tannery”, and today, it has been successfully confirmed in various industrial productions. ChimontGroup achieved the required results through retanning with the following characteristics:

- 210 minutes total work time;
- 6 products used in the single process (excluding basic salts, formic acid and anilines): 2 auxiliaries, 2 retanners, and 2 stuffings;

- no usage of a compound;
- 5 additions of chemical products effected, including the colorants;
- 300% of shaved weight total water used in the process;
- 200% of shaved weight total water for washing;
- repeatability confirmed by several months of industrial applications;
- physical tests, the aspect and the grain of the leather produced with the **Extrema** process passed the quality control of all the tanneries that used it;
- soft, smooth nappa, drummed nappa, box, abraded and vegetable tanned leathers are the articles realised and produced by the **Extrema** process;
- 12 chemical products to be kept in stock in order to obtain all these articles: 3 auxiliaries, 5 retanners, and 4 stuffings.

Extrema: greater security, lower costs, greater flexibility, increase in productive capacity, and maintenance of standards of quality. All this is ChimontGroup: innovation that simplifies work and creates value.



Successful Cationics

The versatile line
that improves leather.

ChimontGroup presents, now in the Mexican tanning market as well, a complete line of cationic products, the result of in-depth study, the effectiveness of which has been confirmed by years of experience. This line of successful products was purposely created to be used in versatile ways and in function of the requirements determined by the particular leather used. As is well known, cationic products have an enhanced capacity to make the leather uniform, leaving it lighter during the retanning phase. Cationics regulate surface absorption, leaving the leather soft, natural and velvety to the touch. Cationic mixtures, because of their increased capacity for filling, are recommended above all for leather with blind grain or superficial scratches. These characteristics make cationic products ideal for the Mexican market, where the major part of tanneries use local leather or American parker, which often has defects such as healed scratches, insect bites, and problems arising from unsuitable storing. The line of ChimontGroup cationics includes:

- > the pigments of the series **K Pigment**
- > anilines of the series **AK Color**
- > casein **K Top 85, K Glosstop**
- > waxes **KWax26, Waxymont438, Waxymont440**
- > resins **Acrymont K77, WThane K/D, WThane**

K/F, WThane A/32

- > **compound CO K 60**
- > **tactile modifiers Sil HL, Modifin 700N/1**
- > **penetrant Thinner AK**

WThane A/32, with its amphoteric charge, deserves special attention. It is a fine, light polyurethane resin of medium shine with a dryness of 20%, that can be used in bases that can be roll coated or resin toppings, both in the anionic and the cationic phase. Given the softness of its film, leathers treated with **WThane A/32** are will be very natural, without excessively loading the grain, with good tactile quality, in accordance with fashion trends that dictate flowing, comfortable lines. Particularly suitable for ground leathers of low quality, **CO K 60** is a polyurethane acrylic compound with good covering capacity, low stickiness and excellent printability. With their cationic line, ChimontGroup offers a series of innovative and easy to use products that markedly improve the quality of the leather and lend naturalness to the refinishing films as demanded by the market.



WThane XTop/P: environment likes shiny effects

The ecological solution to the
solvent bi-component paint.

The keywords that identify the fashion season Spring/Summer 2008 are luminosity, pearlescence, patent and enamel effects. Gold and silver are trendy, along with the classic pastel colours that characterise the spring/summer season. Colour seems to take shape, enriched by glitter and gloss, transparency and glassy looks. Classic games of contrast are being brought back in a modern key as well: white with black, shiny leather interwoven with matte finishes, surfaces that are flowing, soft, and sinuous are set off by spiky, sharp trim. The last fashion trends take shape respecting Nature thanks to the innovative **WThane XTop/P**, a series of water-dispersed aliphatic polyurethanes that give a shiny, stuccoed effect similar to bi-component paint, with no environmental impact. Besides its eco-friendly feature, that is a plus very peculiar for the patent leather, **WThane XTop/P** offers numerous advantages like ease of application that lowers the cost of production. **WThane XTop/P** has been proven highly resistant by both wet and dry flexometer testing, and exalts the brilliance of refinishes such as patent

and abraded. Exceptional results are obtained by applying **WThane XTop/P** on soft leathers, achieving an extraordinary lustre without altering the characteristic softness of the leather. This product is extremely versatile because by hot pressing with **Brill Foil** the desired effect of transparency can be further heightened. **WThane XTop/P** is the ecological answer of ChimontGroup to the bi-component paint, and it's dedicated to those companies who deal with fashion in an eco-friendly way.



Cuoio “espresso”

Quality and reduced times. The new semi-rapid process for sole leather.

The process of leather tanning to realise sole leather is one of the longest and most difficult processes of the leather tanning industry. Tanning of this kind, in tubs, uses a very ancient and traditional technique that calls for the workmanship of artisans and long working times. For this reason, there are few companies in the world who specialise in the production of sole leather that is tanned in tubs. Almost all of these companies are concentrated in the areas of Ponte a Egola and Santa Croce sull'Arno.

Tub tanning means having a transformation time for the leather of some 35 to 40 days, and having large scale facilities that permit warehousing of large volumes of liquid tanners. Tub tanning imparts to the sole unique characteristics such as, for example, a remarkable astringency, a high weight yield, and an elevated resistance to water. Another system that is used to produce sole leather is rapid tanning. Rapid tanning permits a notable reduction in working times. In fact, it generally takes a maximum of two or three days. Naturally the results are very different in that, with the system of rapid tanning, the leather

produced generally has only slight astringency due to the quantity of salts that are used in the process, a weight yield that is less than that of tub tanning because fewer tannins are fixed to the fibres of the leather, an appearance on the surface of greater wear and tear, due to the mechanical action and, finally, that water is able to penetrate more rapidly through the leather. For some years now, ChimontGroup has developed a process for tanning sole leather in vats, called **Cuoio “espresso”**, which permits the production of a sole leather that is very similar to that produced in tubs, notably reducing the working times and increasing the capacity to produce steadily. The key to the **Cuoio “espresso”** process is very simple and calls for the use of very little water. Salts that can compromise the rigidity and absorption of the leather are not used, nor are inorganic acids that can cause acid swelling with irreversible damage to the fibres of the leather. Once pre-tanned, the hides can even be warehoused for long periods without any worries about deterioration. The successive phase is tanning, which takes place

in vats, with a bath volume that is rather high and can last from 3 to 6 days, according to the characteristics desired for the leather. During this phase are performed all the steps of tanning in tubs, beginning with softening tannins and ending with astringent extracts, but with working times that are very reduced. The advantages of this process are numerous:

- Very short working times (3-6 days);
- Quality that is analogous to leather tanned in tubs;
- Weight yield that is equal or greater than that of tanning in tubs;
- A surface appearance that is the same as that of tanning in tubs;
- High resistance to the absorption of water;
- No use of salts that compromise rigidity;
- No use of inorganic acids that can cause damage to the fibres.

This tanning system has allowed the creation of new articles that have had great success in the market, such as, for example, dyed leather for heels. The leather for making heels has to have a very important characteristic, that of obtaining uniformity of the distribution of colorants in all sections of the leather. This process guarantees the result, on black colours (which are the most difficult to make penetrate uniformly) as well as on the various shades of browns, from “brunette” to lighter browns.

ChimontGroup has invented another solution that didn't exist until now: welcome **Cuoio “espresso”**, the semi-rapid process with working times that are only a little longer than “rapid” and a quality that comparable to the complex and laborious “long” process.

| Of leathers decalcified with sodium metabisulphite | Quantity | Time |
|--|----------|--------|
| > Water | 30% | 60 min |
| > Chimotan AC | 3% | |
| > Formic acid | 1% | |
| > Chimotan QS | 5% | 3 h |
| > Morning Ph 3,8 | | |
| > Brain off float | | 100% |
| > Night automatic rotation | | |
| > Water | | |
| > Formic acid | 0,1% | 60 min |
| > Draining tanned leathers | | |
| > Bath / 16°Bè | 50% | 5 h |
| > Acacia extract | 10% | |
| > Brain off float | | |
| > Bath / 16°Bè | 180% | 60% |
| > Water | | |
| > Chimotan BL | 1% | 24 h |
| > Acacia extract | 10% | |
| > Quebracho extract | 5% | |
| > Softened chestnut extract | 10% | 24 h |
| > Softened chestnut extract | 5% | |
| > Astringent chestnut extract | 10% | |
| > Morning / Temperature 38°C | | 48 h |
| > Water | 70% | 30 min |
| > Bath at end of tanning | 30% | |
| > Chimotan BL | 2% | |
| > Brain off float | | |
| > Leathers outside to rest | | |
| > Pressing dehairing | | |
| > Brain off float | | |
| > Dry retanning | | |

Chimoil W/19

The new wax-based lubricant for greasing leather at low temperatures.

The ongoing investigation into how to manufacture new articles with diverse characteristics and looks that are increasingly personalised have led ChimontGroup to experiment with working techniques that have never been tried before. One of these – which has put the laboratory for advanced research to work for months – regards the vat lubricating on wax of leathers tanned with vegetable extracts. Articles with a “waxed effect” created on vegetable-tanned leathers have been manufactured for a long time, but the technique used has always been that of applying the wax-based product on the dry surface of the leather by means of roller or spray machines. In this way, however, more than impregnating the leather with wax, we might say that it is refinished, giving the surface the appearance of having been waxed. In contrast, ChimontGroup wanted to make the wax actually penetrate into the leather while it is still wet, during the phase of lubrication in the vat. This technique was widely applied to chrome-tanned leather for the manufacture of highly specialised articles, such as footwear like “Timberland”, but never on vegetable-tanned leather. The principal reason for this choice arises from the fact that in order to penetrate into the leather waxes need to be applied at temperatures higher than 70° C. Leathers tanned with chrome salts can withstand this temperature, but those that are vegetable-tanned cannot. This is the factor that has limited the application of waxes during the wet lubricating phase. Our research therefore has concentrated on how to overcome this limit in order to be able to realise wax-based lubrication to be applied in the vat that is capable of penetrating into the leather at temperatures not greater than 42° C. So, was born the new product named **Chimoil W/19**. This product can be used alone or in combination with other lubricants, wet as well as dry. Its

principle characteristic is that of penetrating into the leather, and once cooled, to confer the important effect of filling in the fibres themselves, giving the finished article the full grain that is typical of waxes. The surface of the leather, contrary to what might be thought, is natural to the touch and not greasy. The extraordinary capacity to penetrate means that there are no waxy residues on the surface of the leather, which means that it is possible to apply refinishes without worrying about absorption or binding. On this kind of crust a multitude of articles can be produced with truly innovative effects. Because the wax is inside the leather, one of the most surprising effects that can be obtained with articles greased with **Chimoil W/19** can be appreciated during the phase of flat pressing. The waxes, softening because of the temperature, are displaced from the inside of the leather to the surface, creating the extraordinary effects of “Pull up” and leaving the surface dry to the touch. Another very interesting effect is obtained on articles that are dry vatted. Because of the notable filling effect that the waxes confer to the leather, the grain that is formed on the surface assumes a particular pattern, different from that obtained on the usual leather lubricated with traditional systems. The tip of the grain is resistant to the rubbing of the vat, taking on a tone that is darker and more brilliant, thus contributing to the realisation of articles that are very natural and transparent. When performing printing, the darkening effects on the surface due to the pressure and temperature of the printer embellish the articles and make them more unique. There are many other effects that **Chimoil W/19** is able to give to leather. **LeatherZone** will talk more about them in upcoming issues to keep its readers informed about new developments in the world of leather that innovate with quality while respecting tradition.

Chimotan AP and Chimoil 61.46 for Floater light

Short retanning, low consumption.

The continued evolution of the latest fashions, characterised in a special way to exalt the accessories that accompany the clothing of the woman of today, sheds light on the important role played by leather goods, and more specifically, on women’s handbags. In keeping with this requirement, ChimontGroup has standardised a short chrome-retanning process on the leather, named **Floater Light**, which with a few variations in products and a low consumption of water (it is added up to the dyeing phase in a single bath) permits the realisation of leathers that are soft, full but exceptionally light (the so-called floaters). These leathers have, after drying and shutting, a grain that’s extremely uniform on the entire surface.

The particularity of this article is due to the fact that it can be used in footwear as well, because the grain formed is especially full and substantial, and as a consequence renders the hides suitable for this kind of working. Key products of this process are **Chimotan AP** (a special polymer which performs a retanning and filling purpose) and **Chimoil 61.46** (used as a lubricant), fundamental to give the leather the extraordinary characteristics of softness and low specific weight, in order to produce finished items of significant dimension but which are lightweight and comfortable. Once again, therefore, ChimontGroup has shown itself able to keep up with market requirements by developing products and processes in keeping with its working philosophy: to create innovations that are capable of improving production processes, improving overall quality while respecting tradition. The ultimate aim of ChimontGroup is to help its customers to maximise the costs/benefits of their work. For this reason ChimontGroup has been continuing for years to increase the efficiency of its products, finding new ways to avoid useless waste, to lower consumption and, as regards the environment, to pollute less.



WE MAKE YOUR LEATHER WIN.

CHIMONTGROUP È UN'AZIENDA CERTIFICATA UNI EN ISO 9001:2000 E UNI EN ISO 14001:2004



No matter what the field of application is, ChimontGroup is able to provide products and solutions that add value to your leather. Thanks to assiduous research and long years of experience, ChimontGroup creates chemical products and innovative processes for every phase of tanning, retanning, and finishing, genuinely capable of augmenting the competitiveness of the tanning industry. Simplicity of use, a lower quantity of products, low environmental impact, better quality leather, greater economic advantages. **ChimontGroup: real innovation that makes you a winner.**