

LEATHER GUIDE



CONNEAUT LEATHER

WWW.CONNEAUTLEATHER.COM

494 EAST MAIN ROAD CONNEAUT, OHIO 44030

T 800.356.1177 F 440.593.6776

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COMPANY HISTORY

Conneaut Leather was founded in 1903 in Conneaut, Ohio U.S.A. by a small group of local businessmen. An article appeared in the June, 1903 county newspaper describing the application for company formation, “Conneaut Leather Company is formed for the purpose of buying, selling, tanning, curing, and generally dealing in leather and leather articles”.

Conneaut Leather started out providing leather to general industries that were producing leather items common for the time period. In the 1940’s Conneaut Leather started supplying desktop leather to the residential furniture industry. Around this time they also decided to specialize in the finishing of leather and to rely on other tanneries for their raw material.

In the 1960’s Conneaut Leather diversified into automotive aftermarket, upholstery leather for the residential furniture industry, and aircraft leather. At this time, a color specialist was hired to color match customer’s specific requests for leather colors. They then moved into the contract furniture, recreational vehicle, marine, and bookbinding industries. Recently Conneaut Leather has expanded these markets to include leather especially created for the hospitality and healthcare industries.

Today, Conneaut Leather is an ISO certified quality leather finisher producing over 500 hides a day with a capacity of producing over 2000 hides a day. The company has moved into a state-of-the-art facility with the finest and most technologically advanced machinery. In-stock programs, supported by a second generation Mexican tannery, currently number over 250 sku’s. The custom color match program, satisfying the most discriminating of customers, is among the best in the industry. Conneaut recently partnered with Crypton to offer revolutionary leather that is antimicrobial, antibacterial, water resistant, and bleach cleanable. It is diversification, longevity, quality, and excellent customer service that make Conneaut Leather the successful company it is today.



ENVIRONMENTAL STATEMENT

As an ISO 09001:2000 Certified Company, Conneaut Leather firmly adheres to all EPA guidelines and government regulations as part of a company-wide policy to maintain the sustainability of our environment. While producing leather in the most responsible manner possible, we have a long-term commitment to respect the earth’s natural resources. Conneaut Leather maintains an affiliation with both the hide renderer and the tanner that offers a vertical integration allowing us a unique awareness of the tanning processes from start to finish.

Tanning & Finishing Process

Our introduction of chrome-free products, Hospitable Hides Eco, Harmony Eco, and Showcase Eco offers a biodegradable/vegetable tanned leather alternative. This process is completed in one of the only tanneries that utilize separate equipment totally dedicated to the process of chrome-free tanning. ALL of our finishes used emit well below the allowable VOC (volatile organic compounds) as established by the EPA. None of our pigments contain lead.

SCS Certification - All of our products are SCS Indoor Advantage Gold Certified
SCS is a global leader in independent certification of environmental, sustainability, food quality and food purity claims. Over two decades, SCS has developed internationally recognized standards and certification programs aimed at spurring the highest level of environmental improvements, social accountability and product performance.

Life Cycle of Leather

Leather begins as a by-product of the meat industry. The longevity of leather is unmatched by any other upholstery material 4 to 1 and is 100% percent post-consumer recyclable. The beauty and distinction of leather increases with age and attests to the taste and discrimination of the owner.

Reduced Product Maintenance

All Conneaut Leather finishes are water-soluble. Minor spots on our products can be washed off using lukewarm water and a mild soap. Leather should never be cleaned with abrasive solvents, alcohol, or wax-based products.



For information on our Crypton cleaning products please refer to “Care and Maintenance”.

Conneaut Leather Environmental Practices

Conneaut Leather continually evaluates its business practices to determine how to best support the environment. We are members of the Leather Industries of America Organization in Washington D.C. to keep us abreast of all new environmental legislation and ideas to keep all processes in compliance.

- Scrap leather is recycled to a company that makes small leather goods.
- We have made arrangements with our customers to ship back boxes that can be reused for future shipments.
- A service is employed to collect and recycle extra cardboard, packaging material, and wooden pallets.

Conneaut Leather has established an environmental team consisting of the President, Quality Manager, Maintenance and Technical Supervisor to monitor and maintain internal awareness and compliance. In addition, Conneaut Leather has its own water treatment process and our water is tested daily.

WHAT IS LEATHER?

The answer may seem obvious but it is sometimes necessary to note vigorously that only animal hides or skins subjected to a tanning process may be called leather.

Scientifically controlled tanning converts the raw hide and skin to a semi-organic material not susceptible to decay. The inherent natural virtues of the raw material are enhanced by tremendous durability, aesthetic appeal and by physical properties designed to meet requirements of specific end uses. These physical properties in particular cannot be overemphasized.

Strength - Leather is constructed by nature as a three-dimensional network of interlacing fibers. A tiny fragment of leather reveals, under the microscope, millions of fibers interwoven in every direction. Hence, the extraordinary strength of leather in ratio to weight, its ability to resist tension, endure repeated flexing and its unsurpassed stitch-tear resistance.

Breathability - The scientific term is transpiration, and this too is an attribute of leather’s three-dimensional fiber structure. Leather is not a solid, impermeable material. The countless fibers in each square inch of leather conduct and dissipate heat and moisture. For that reason leather is always associated with comfort.

Durability - There is a truism in every language extolling the long service life of upholstery leather. Its durability is due in part to the fiber structure described above and also to the chemical armor imparted by tanning. Leather resists all the causes of decay and deterioration - bacteria, temperature change, humidity variation. The resulting durability is a familiar fact in furniture.

Raw Material - Cattle hides are almost exclusively the raw material starting point for upholstery leather. Only the choicest hides are suitable for quality upholstery leather which must meet criteria far more severe than leather destined for shoes or other products.

Modern packing houses classify their hides by standard designations descriptive of animal sex, weight, and whether or not the hide has been branded. For example: Heavy or Light Native Steers (Male) and Heavy or Light Native Cows (Female). The term “native” indicates that the hide has not been branded.

A TREMENDOUS VALUE

Leather is the fastest growing upholstery material used today due to its strength, supple feel, wearability, and ability to breathe. With an average lifespan four times that of fabric, leather represents a tremendous value to the consumer. Leather requires almost no maintenance; dusting with a clean, dry cloth is the recommended routine cleaning method. Taking all of these facts into account, leather is truly an investment and a mark of distinction and good taste in the office or home.

The tanning industry is a by-product of the meat industry. The United States is the largest producer of cattle in the world; about 42,000,000 cattle are slaughtered each year for meat and the hides are tanned for a variety of uses. The shoe industry uses the largest percentage of the hides and the upholstery industry uses the smallest percentage of hides.

LEATHER...THE NATURAL CHOICE

Because leather is a natural product, natural markings are normal and in no way affect the strength or wearability of the leather. In fact, markings such as healed scratches, stretch marks, neck wrinkles etc. enhance the beauty of the leather and are unique and desirable characteristics.



TOP GRAIN VERSUS FULL GRAIN

Top Grain: the top layer is buffed off to improve selection, remove excess markings such as warts, scars, and any remaining imperfections. Leather that has not been buffed or sanded is “full grain”. The grain and natural markings, which many consider the hallmarks of fine leather, remain.

HOW IS LEATHER PRODUCED?

There are two distinct phases in the production of leather to the point where it can be fabricated by manufacturers of furniture. The first is the tanning process whereby raw hides are converted to durable tanned leather with specified desirable properties. At this stage the leather is ready for a cosmetic treatment known as the finishing process.

The Tanning Process

In essence, the tanning process is actually the transformation of an unstable organic material called rawhide into a stable product that will last forever called leather. This process is accomplished through chemical reactions, using environmentally friendly chemicals. It is at this stage that the vegetable tanned (chrome-free) leather is separated from the chromium-tanned leather.

The leather is then treated with transparent aniline dyes, which penetrate the hide and give it its base color. Since dyes are transparent, all of the natural grain characteristics are visible and this leather is called a pure aniline leather. For semi-aniline products the hides subsequently go through the finishing process. This production step is most important because besides giving the finished product its desired texture and looks, it also imparts protection against fading and staining. Another important aspect of this process is to provide the leather with uniformity of color and most of all; excellent wearability.

The product has all the inherent virtues of the raw hide and none of its disadvantages. However, the tanning process is scientifically formulated and controlled to give leather precise physical characteristics. Thus, upholstery leather tanning is designed to yield a soft and supple leather with minimal stretch.

Tanning is a multi-stage, lengthy and time-consuming process. It can be tersely described as follows:

- Preparation of hides by cleaning and removal of all extraneous material such as hair, fat or flesh.
- Separating the skin fibers to allow complete penetration by the chemical tanning agents.
- Closing the fibers and neutralizing all chemicals.
- Addition of fat-liquors to replace natural lubricants and aniline dyes for base colors (aniline drum-dyed leathers).

The Finishing Process

Finishing of upholstery leather is a craft which blends science and art in a two-fold objective: to protect and to enhance the surface appeal of leather. Science is invoked to produce a finish which is integral with and bonded to the leather by molecular penetration. Proper techniques yield finishes which survive more abuse in laboratory testing than in many years of normal usage.

Art makes the difference between the ordinary or commonplace look and the arresting, beautiful appearance of a fine leather upholstered product. Blending color and luster, achieving the right shade in two-tone effects, the subtle touch of contrast coats and textures and above all, meeting customer expectation requires a high level of skill and precision.

Plating or embossing is another aspect of finishing which calls for exceptional skill and experience. Whether the natural grain is to be emphasized or a texture embossed, it is vital that the intrinsic appeal of leather's surface must not be obscured but enhanced. At Conneaut Leather, plating and embossing are supervised as closely as hand rubbing or antiquing.

A succession of coats are applied in finishing and each serves a specific purpose. The first, for example, gives an even, uniform color base to the crust leather and also, by penetrating the grain surface, acts as a binder for later coats.

According to the desired effect these are sprayed for a solid color or hand rubbed with variable pressure to create the blended highlights and shadows of a vintage product. The final application is a clear sealing coat which can range from matte or dull to glossy. Customer preference and consistency with the overall character of the leather dictate the degree of gloss in the final top coat.



CUT - TO - PATTERN CAPABILITIES

Conneaut Leather is dedicated to its customers in quality and service. Our cut-to-pattern program is a special service, providing complete cut parts for upholstered furniture, in a broad range of fashionable leathers.

A cut-to-pattern program allows the manufacturer to become a viable leather furniture resource without the intricacies of whole-hide inventory, cutting schedules, manpower and dollars. This concept enables any upholstered furniture manufacturer to sell leather furniture in both quantity and through special ordering by the retailer.

The most important aspect of implementing a cut-to-pattern program is having the advantage of a fixed cost for the product. All leather parts are cut according to your manufacturing specifications, quality standards and methods, and individually inspected to meet that criteria. Programs regarding stocking and delivery can be customized to fit your needs. Our skilled and dedicated personnel are knowledgeable in manufacturing processes and methods, providing expertise and recommendations for better leather usage resulting in higher yields.

Conneaut Leather has been creating quality cut-to-pattern parts for furniture manufacturers as well as the automotive industry for some of the most recognizable names in both industries.

Improve Productivity

Our cutting machines feature automated color hide scanning, flaw capture and multiple nesting packages. Depending on the application, it can cut as many as 15 hides per hour.

Maximum Yield

Field results have shown our cutting machine reduces leather waste by 4 percent; however, some organizations realize as much as 10 percent in savings. Each machine supports fully automatic nesting as well as manual nesting.

Obtain Manufacturing Flexibility

Eliminate the need for costly cutting dies and pattern templates. Experience immediate results as you take an idea from concept to production. No more waiting for dies or templates - electronic patterns can be created and cut in a matter of minutes. Improve your competitive position by eliminating OEM tooling costs.

Unparalleled Quality & Accuracy

Consistent, reliable cut quality and accuracy. As a result, users realize a reduction in recuts and even-up cuts. A level of uncertainty is inherent when cutting with dies damaged, bent or obsolete dies and die movement during pressing can affect the integrity of your cut parts. In die cutting, recuts and even-up cuts are required frequently

- our machine will ensure the correct quantity of each part is cut because operators no longer have to track which dies have already been placed.

Sewing

Conneaut Leather has unlimited sewing capabilities at its tannery in Mexico.

CARE AND MAINTENANCE

Upholstery leather in general requires less care and maintenance than any other upholstery material on the market. In fact, it can be safely said of leather that the less care, the better! Leather should be dusted when other furniture is dusted. For full and top grain leather, any additional care required by spills or stains is simple:

1. Use the suds of a mild non-detergent soap and lukewarm water on a soft cloth to go over the surface.
2. Rinse off the soap film with a dampened clean soft cloth.
3. Wipe dry with another soft cloth.

Crypton Cleaning Products

Crypton cleaning products are available from Conneaut Leather that contain no volatile organic compounds (VOC's). These cleaning products were developed by leather care experts with help from the performance fabric leader, Crypton Super Fabrics to safely clean leather and help maintain the soft hand after deep cleaning and restoring. Natural degreasers are used in the formulation of the wipes and liquid cleaners to safely remove difficult stains from the surface.

Crypton Leather Cleaner:

Directions: Apply with dampened sponge. Wipe dry with soft cloth.

Crypton's Leather Cleaner is specifically formulated to safely clean leather protected by Crypton. It should be pre-tested in an inconspicuous area before use. It is not recommended for use on pure aniline leathers. It will work on all other leather surfaces, and there is no need to scrub the surface as this product easily removes blue jean dye transfer, ink marks and general soiling. Safe and effective, this product is offered both ready to use and in concentrate portions.

Crypton Leather Restorer:

Directions: Apply with soft cloth. Allow to air dry; then polish with clean soft cloth.

Crypton's Leather Restorer is specifically formulated to replenish natural oils after cleaning. It should be pre-tested in an inconspicuous area before use. It is not recommended for use on pure aniline leathers. This product will safely protect the surface from future staining, and will repel most crayons, makeup, inks and other dye transfer from jeans and leathers. It will keep the leather soft and supple for years to ensure a beautiful design choice...stays that way.



LEATHER DEFINITIONS

Aniline Dyed- The process of coloring leathers throughout in a rotating drum using non-toxic aniline dyes. The dye is transparent and therefore allows all of the natural markings to be visible.

Base Coat- Color that is applied to a compatible crust color to achieve the final color of an aniline dyed product.

Buffed Top Grain- The process of sanding or buffing top grain leather to smooth the high spots of imperfections.

Corrected- A new grain is printed or embossed on the leather surface after buffing.

Dyed Crust- Hide or skin that has been tanned, aniline dyed, and then dried for further finishing process.

Drum Dyed- A dyeing process at the tannery in which leather is immersed in aniline dye and tumbled to allow maximum dye penetration.

Embossing- A process of altering the natural grain of the leather by using plates or rollers creating a very uniform grain pattern.

Finishing- Any further steps taken after the dyeing treatment such as rolling, pigmented spraying, lacquering, antiquing, waxing, buffing, embossing, glazing, waterproofing, or flame proofing in order to provide more abrasion and stain resistance and/or a more even surface coloration.

Full Grain- Any leather in which only the hair has been removed while the grain remains in the original state.

Grain- The natural or embossed pattern and texture of a hide's surface.

Hand- Term used to describe the softness or feel of leather.

Hand Antiqued- The hand application of a darker color over a lighter color creating a dramatic highlight.

Hide- The skin of an animal.

Leather- A generic term for all hides that have been tanned to a non-perishable state.

Milling- Process in which hides are tumbled in a drum to soften the hand or enhance the grain.

Nubuk- A top grain leather which has a slight nap effect produced by removal of the epidermis.

Pigment Finish- A process of coloring and coating the leather surface with colorants.

Pull Up- Full grain aniline leather that derives its color from dyes. When the leather is pulled, the oils or the waxes in the leather cause the color to dissipate and become lighter in areas which are pulled tight.

Pure Aniline- Any leather that receives all its color from aniline dyes only, and has no topical applications. Natural markings are visible and are to be considered a unique part of each hide.

Semi Aniline- Leather which has been aniline dyed and then lightly pigmented to ensure color consistency and resistance to liquids.

Split- During the tanning process, a hide is split into layers and the underneath portion is referred to as a split. It is often used in the garment industry as suede.

Tanning- The process of converting raw hides into a non-perishable state.

Top Coat- Synthetic transparent polyurethane resins applied as a clear protective coating to make leather more resistant to wear and liquids. Finishes vary from a high gloss to a matte.

Top Grain- the top layer is buffed off to improve selection, remove excess markings such as warts, scars, and any remaining imperfections

Vegetable Tanned- Leather that is tanned using vegetable extracts instead of chromium to make the leather biodegradable.

Yield- The amount of useable area after all waste and unacceptable imperfections are discarded.



