

## LEATHER INFORMATION 1/3

### General information about leather

Leather is a heterogeneous material. There are no two similar hides; not only the different parts do not have the same texture or even grain, but also race, gender, age of the animal, food, farming method and origin influence the nature of the hide.

Tanners generally consider hides from the center of Italy, Switzerland and southern Germany as the best qualities. Tanner skills are another key where the quality manufacturing of finished leathers is concerned.

The exclusively European origin of raw and tanned hides ensure us the respect for the current standards with preferably and maximum use of environmentally friendly products, chrome 3 tanning, no PCP (polychloroprene), PCB (polychlorinated biphenyl, or HCFCs (hydrofluorocarbon).

The appreciation of leather quality is very delicate and requires great experience and skill. It is extremely difficult to make a formal judgment without recourse to standardized tests.

These tests, carried out in specialized laboratory, provide us objective data on the resistance of leather to dry and wet rubbing, distension, tear strength, color fastness, etc ...

A careful reading of these tests result is instructive and especially allows us to choose the most suitable type of leather for the purpose for which it is intended.

Thickness of leather is not binding for its quality and longevity; it substantially influences its price. In case of very thick leather, 2 mm or more, the selection process is rigorous, the crust is not recovered for other uses and thickness increases costs of tanning. Apart from the phenomenon of distension, a little more marked by fine leathers (1.2 to 1.4 mm), no difference in longevity is noted compared to thicker leathers. For the good performance of the sofa, a 1,2 mm thickness seems to be a minimum.

For a constant thickness, leather is either "levelled" on the reverse, the fibers, recovered to make agglomerates of simili leather are cut in thickness. The lower recovered layer is called split leather and can be coated to have a leather look or used for many applications under the name "buckskin".

### Animal species

#### Calf hide

Hides from very young cattle, with a fine grain and not very thick. They are hides with a high price and difficult to work because of their small size, about 2 m2. The scarcity of the product makes it economically inaccessible for making sofa, the (true) calf is now reserved to the sector of luxury leather goods.

#### Cow hide

This leather is the most used due to the large quantity of available raw material. Cowhide leather includes different qualities, a general judgment on the quality of this leather is not possible.

#### Ox hide

Hides from cattle males, indoor rearing for slaughter and killed between 18 and 24 months. Thanks to the animal youth and the rearing method, skin is thick and resistant with a very fine grain, making it possible to work hides of exceeding 2 mm thickness. According to their origin, ox hides are considered among the finest leathers.

### The buffalo

Hides coming from the Asian water buffalo. Highly characteristic grain with its irregularity and its wild aspect. Considering the way of life of this animal, adult animal skins have too many defects to obtain beautiful quality leather; it's therefore an obligation to use the buffalo calf hides, difficult to work for their small size (max 2.2 m2) and for the requirement to match the grain on different parts of the sofa. Observing some commercialized hides under that name, one may think that the grain has been reprinted for the uniformity of the sofa, or even that they are cow hides reprinted and renamed. A magic label in the minds of many consumers by the apparent strength of this animal, under normal use and matching quality, this type of leather does not particularly stand out from others.

### 3 types of leather

#### Full grain

Hides have preserved their full original grain.

The grain is the leather part where hair was implanted, these are the finest and densest fibers.

It is the grain, despite its small thickness (a few tenths of mm) which provides the majority of the mechanical strength to the leather.

It has not been buffed and sanded.

It is a very high quality leather that have kept all its appearance characteristics and homogeneity of structure.

It will be highlighted by an aniline or semi aniline finish, generally conserving its natural grain.

Irregular grain, trademarks of animal life, insect bites, scars, folds of fat are all indicators to identify this leather.

#### Rectified or corrected grain

This kind of leather has undergone a mechanical operation of buffing and sanding.

It is of lower quality in terms of appearance; sanding is performed to mitigate or eliminate the surface defects. This operation leads to the complete or partial removal of the grain; it destructures the leather and eliminates a great part of the mechanical strength.

This leather is highlighted by a pigmented finish, often with an artificial grain print.

#### Nubuck leather

This leather has been buffed and sanded with purpose to keep this sanded finish with a soft and silky touch leather look.

This finish can be achieved on the hides of all animal species.

The importance of surface sanding is related to the initial choice of leathers. Less sanding is important better the quality of finished leather. At best, the grain, even if partially destructured, is still virtually present with its excellent mechanical properties. In the worst case, sanding is so important that the finished product is closer to the crust than to nubuck leather.

These hides are not subjected to finishing operations after dyeing process and have generally, in addition to their natural grain, an artificial printed grain.

At this point, this leather is extremely absorbent and it is practically a need to protect it by a treatment type Scotchgard®, preferably by immersion rather than by surface spraying, which is not a really durable treatment.

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### 3 types of finish

The choice of a finish adapted to your environment and your daily use is the most important element for a satisfactory usage of the sofa and its durability.

Finish is the last step of leather working, giving it its commercial and / or use value. Finish is the operation which consists in coating leather with a good grip thin layer that protects it from external agents and enhances its aspect. To highlight leather as much as possible, according to the initial quality of the hide, that is grain aspect, one of 3 finishings, described below, will be performed.

#### Anilin finish - Leathers PAVO - PHOENIX - TAURUS

Also said "pure anilin". This is a leather dyed throughout in a dyestuff known as "anilin". What characteristics anilin finish is its transparency, compared to other so-called "covering power" colors. After throughout dyeing, leather receives an anilin pigment, colorful but transparent and extremely thin (less than 0.5 microns) and a mixture of waxes. This transparency allows to appreciate the natural aspect of the grain and have a soft and greasy feel known as "candle touch". This leather has the material original characteristics, with its irregular grain, marks of "life", insect bites, scratches, traces of rubbing, etc ... This type of finish lets leather "as natural" with its inimitable patina over time. This leather is not very resistant to light scratches but they disappear very easily by rubbing with a soft cloth. In case of an important scratch, it will be quickly in harmony with the natural leather ensemble. Resistance to light is lower than by pigmented finish and rarely exceeds 3/8 but in case of bad discoloration, it is still possible to "regain" the color with specific dyed milk. It is also possible to perform preventive treatments with a specific product ([www.art-cuir.fr](http://www.art-cuir.fr)). It has the advantage of causing little sweating, it lets water vapor and it is thermoregulatory. It is the most expensive leather since the selection of hides is rigorous, the finish is longer and more expensive. Furthermore, the percentage of loss at cutting is very important. For connoisseurs and purists it is "THE LEATHER" the only authentic to their eyes, even if it has some disadvantages, it will get a nice patina and enhance its beauty over time.

#### Semi-anilin finish - Leather DRACO

This is a finish on the same basis as aniline but with a more covering pigments layer (more than 0.8 microns). The grain is not completely hidden, which gives the impression of an aniline finish but a little less "transparent". Compared to aniline finish, it is less natural, touch is a little less pleasant but it is also less sensitive to light (discoloration) and dirt. It will not have the same patina over time. This leather is highly resistant to light scratches but more important ones, with tearing of fibers and pigments, will be visible. This type of leather is generally considered the best price / aspect / touch / maintenance ratio. The two finishes "semi-aniline" and "pigmented" are technically different, but in some cases it is difficult to distinguish them.

#### Pigmented finish - Leather TUCANA - ORION

This is a leather which is not necessarily dyed throughout (all Triss leathers are dyed through) and is covered by spraying a pigment layer that hides the substrate, full grain or corrected grain). Such pigments are mostly synthetic. Pigmented leather, even if it is not the most attractive for its look and touch, is interesting in terms of price, resistance to light, abrasion and dirt. This leather is highly resistant to scratches which, on the other hand, do not disappear. In some cases, over the time, cracking of the surface finish it is to be feared, letting appear the substrate of a different colour if it has not been colored throughout prior to the pigmentation. The main interest of this leather is its price.

#### Main precautions

##### General information about leather.

Avoid too dry or too humid atmosphere,  
Avoid proximity to heat sources  
Avoid strong light exposure. Protect your leather against sunlight or strong indirect light. Where it is not possible to avoid heat or sunlight, protect your leather from drying out by applying the protection cream with additive "light protection."  
Using cream, you protect leather pores and veins from dust particles and avoid thereby it gets dirty. See care instructions.  
Only use products adapted to your leather. Common cleaning products or products for shoes can cause irreversible damage to the leather. Do not use unsuitable products, aggressive solvents based, for leather. The unsuitable or unsafe operations often involve expensive remediation costs.  
Regular preventive maintenance using LEATHER CARE products will allow you to enjoy your leather without significant risk. However, if you have a problem, please contact our information center or study advice and range of curative products available at [www.art-cuir.fr](http://www.art-cuir.fr).

#### Aniline leather

Aniline leather finish is considered the "most beautiful". Nevertheless its own characteristics must be fully known and accepted since no complaint about these natural characteristics will be admissible. Marks of insect bites, closed and clean scars, neck wrinkles, stretch marks, folds of fat, boils marks, etc... are the witnesses of the intact grain of this natural and genuine leather, their presence is normal and guarantee of quality. The color and grain will vary on the same hide and from one hide to another, it is impossible to carry out a uniform and homogeneous hide. The finish of these leathers does not guarantee light fastness, LEATHER CARE ([www.art-cuir.fr](http://www.art-cuir.fr)) offers a product for enhancing this resistance. Areas of more intensive use (armrests, seats and top of back) are more susceptible to dirt and a very regular maintenance is essential. A "patina" more pronounced in these areas is normal. This authentic high quality leather nevertheless remains the most pleasant to use and to touch; it is breathable and it is probably the most durable; a beautiful aging leather in the medium and long term.

#### Pigmented leather

Pigmented leather is the most practical to use but you must be careful not to scratch the surface finish.

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**TUCANA CAT. 1**

Cow leather.  
Thickness 1/1,2 mm.  
Corrected grain.  
Pigmented finish.  
Dyed through, mineral chrome tanning.

**ORION CAT. 2**

Ox leather.  
Thickness 1/1,2 mm.  
Corrected grain.  
Pigmented finish.  
Dyed through, mineral chrome tanning.

**DRACO CAT. 2**

Ox leather.  
Thickness 1,4/1,8 mm.  
Full grain, natural grain.  
Semi-aniline finish.  
Dyed through, mineral chrome tanning.

**PAVO CAT. 3**

Ox leather.  
Thickness 0,9/1,1 mm.  
Full grain, natural grain.  
Pure aniline finish.  
Dyed through, mineral chrome tanning

**TAURUS CAT. 3**

Ox leather.  
Thickness 1,7/1,9 mm.  
Full grain, natural grain.  
Pure aniline finish.  
Dyed through, mineral chrome tanning

**PHOENIX CAT. 4**

Ox leather.  
Thickness 1,2/1,4 mm.  
Full grain, natural grain.  
Pure aniline finish.  
Dyed through, mineral chrome tanning

| LEATHER | Origin                | Hides size             | Thickness  | Thickness measurement standard | Flexing endurance | Flexing endurance standard | Dry rubbing resistance | Dry rubbing resistance standard | Wet rubbing resistance | Wet rubbing resistance standard |
|---------|-----------------------|------------------------|------------|--------------------------------|-------------------|----------------------------|------------------------|---------------------------------|------------------------|---------------------------------|
| TUCANA  | Worldwide             | -                      | 1/1,2 mm   | IUP4-UNI EN ISO 2589           | 20.000            | UNI EN ISO 5402            | ≥ 4/5-500 cycles       | IUF450-UNI EN ISO 11640         | ≥ 4/5-200 cycles       | IUF450-UNI EN ISO 11640         |
| ORION   | Europe                | -                      | 1/1,2 mm   | IUP4-UNI EN ISO 2589           | 50.000            | UNI EN ISO 5402            | ≥ 4/5-500 cycles       | IUF450-UNI EN ISO 11640         | ≥ 4/5-150 cycles       | IUF450-UNI EN ISO 11640         |
| DRACO   | Europe                | 4,5 - 5 m <sup>2</sup> | 1,4/1,8 mm | IUP4-UNI EN ISO 2589           | -                 | UNI EN ISO 5402            | ≥ 4/5-500 cycles       | IUF450-UNI EN ISO 11640         | ≥ 4/5-80 cycles        | IUF450-UNI EN ISO 11640         |
| PAVO    | Germany / Scandinavia | 4,5 - 5 m <sup>2</sup> | 0,9/1,1 mm | IUP4-UNI EN ISO 2589           | -                 | UNI EN ISO 5402            | ≥ 3/5-500 cycles       | IUF450-UNI EN ISO 11640         | ≥ 3/5-20 cycles        | IUF450-UNI EN ISO 11640         |
| TAURUS  | Europe                | 4,5 - 5 m <sup>2</sup> | 1,7/1,9 mm | IUP4-UNI EN ISO 2589           | -                 | UNI EN ISO 5402            | ≥ 3/5-100 cycles       | IUF450-UNI EN ISO 11640         | ≥ 3/5-20 cycles        | IUF450-UNI EN ISO 11640         |
| PHOENIX | Europe                | 4,5 - 5 m <sup>2</sup> | 1,2/1,4 mm | IUP4-UNI EN ISO 2589           | -                 | UNI EN ISO 5402            | ≥ 3/5-50 cycles        | IUF450-UNI EN ISO 11640         | ≥ 3/5-20 cycles        | IUF450-UNI EN ISO 11640         |

| LEATHER | Tear resistance | Tear resistance standard | Tensile strength       | Tensile strength standard | Elongation at break | Elongation at break standard | Stitch tear resistance | Stitch tear resistance standard | Light fastness | Light fastness standard |
|---------|-----------------|--------------------------|------------------------|---------------------------|---------------------|------------------------------|------------------------|---------------------------------|----------------|-------------------------|
| TUCANA  | ≥ 20 N          | IUP8-UNI EN ISO 3377     | -                      | IUP6-UNI EN ISO 3376      | -                   | IUP6-UNI EN ISO 3376         | -                      | DIN 53331                       | ≥ 4/8          | UNI EN ISO 105-B02      |
| ORION   | ≥ 20 N          | IUP8-UNI EN ISO 3377     | ≥ 10 N/mm <sup>2</sup> | IUP6-UNI EN ISO 3376      | 40-80%              | IUP6-UNI EN ISO 3376         | -                      | DIN 53331                       | ≥ 5/8          | UNI EN ISO 105-B02      |
| DRACO   | ≥ 40 N          | IUP8-UNI EN ISO 3377     | ≥ 1200 N               | IUP6-UNI EN ISO 3376      | 50-70%              | IUP6-UNI EN ISO 3376         | ≥ 40 N                 | DIN 53331                       | ≥ 3/8          | UNI EN ISO 105-B02      |
| PAVO    | ≥ 40 N          | IUP8-UNI EN ISO 3377     | ≥ 1000 N               | IUP6-UNI EN ISO 3376      | 50-70%              | IUP6-UNI EN ISO 3376         | ≥ 40 N                 | DIN 53331                       | ≥ 3/8          | UNI EN ISO 105-B02      |
| TAURUS  | ≥ 40 N          | IUP8-UNI EN ISO 3377     | ≥ 1200 N               | IUP6-UNI EN ISO 3376      | 50-70%              | IUP6-UNI EN ISO 3376         | ≥ 40 N                 | DIN 53331                       | ≥ 3/8          | UNI EN ISO 105-B02      |
| PHOENIX | ≥ 40 N          | IUP8-UNI EN ISO 3377     | ≥ 1200 N               | IUP6-UNI EN ISO 3376      | 50-70%              | IUP6-UNI EN ISO 3376         | ≥ 40 N                 | DIN 53331                       | ≥ 3/8          | UNI EN ISO 105-B02      |