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**Leather — Vocabulary**

*Cuir — Vocabulaire*

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## Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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This document was prepared by Technical Committee ISO/TC 120, *Leather*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Leather — Vocabulary

## 1 Scope

This document defines terms used in the leather industry.

## 2 Normative references

There are no normative references in this document.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

### 3.1

#### abrasion resistance

<performance> ability of the leather to withstand surface wear from rubbing, chafing and other frictional forces

### 3.2

#### aniline leather

<material> leather whose natural *grain* (3.46) is clearly visible either without a surface coating or with a non-pigmented surface coating

Note 1 to entry: The thickness of non-pigmented surface coating is usually less than or equal to 0,01 mm.

### 3.3

#### barkometer

<equipment> type of hydrometer used in tanneries

Note 1 to entry: The correlation between specific gravity and barkometer reading (Bk) is as follows:

Specific gravity	°Bk
1,0	0
1,020	20
1,120	120

### 3.4

#### basicity of chromium

<chemical characteristics> number of hydroxyl groups borne by a chromium unit as a percentage fraction of the same present in chromic hydroxide

### 3.5

#### basification

<process> mild alkali treatment to ensure completion of *tanning* (3.97)

EXAMPLE Treating the mineral tanned stock with a view to forming a large aggregate of metallic compounds and enabling reactive groups of *skin* (3.88) to complex with tanning material.

### 3.6

#### **bate**

<material> enzymes mixed with an inert carrier used to selectively remove unwanted constituents of *hides* (3.48) and *skins* (3.88)

#### 3.6.1

##### **acid bate**

*bate* (3.6) that has optimum activity in the pH range of 3 to 5

#### 3.6.2

##### **alkaline bate**

*bate* (3.6) that has optimum activity in the pH range of 8 to 8,5

### 3.7

#### **bating**

<process> removing unwanted interfibrillary proteins by treating the *hides* (3.48) and *skins* (3.88) with *bates* (3.6), to obtain soft and pliable leather with a smooth *grain* (3.46) surface

### 3.8

#### **baume**

<physical characteristic> liquid density measurement which can be converted to specific gravity

Note 1 to entry: Typically used to calculate the concentration of the process solution, for example salt solution, using the following formulae:

- for liquids heavier than water, specific gravity =  $145/(145 - n)$  at 15 °C (60 °F);
- for liquids lighter than water, specific gravity =  $140/(130 + n)$  at 15 °C (60 °F).

where *n* is the reading on the baume scale abbreviated as °Be.

Note 2 to entry: Be is equivalent to 6,9 °barkometer (3.3) reading, Bk.

### 3.9

#### **beam**

<equipment> convex wooden slab sloping downward from about waist height over which a *hide* (3.48) is placed for unhairing, trimming off excess flesh and ragged edges, and *scudding* (3.78) by hand knife

### 3.10

#### **binder**

<material> film-forming material, usually polymeric, used to adhere pigment particles and additives for coating the surface of the leather

### 3.11

#### **bleaching**

<process> lightening the colour by suitable chemical treatment

### 3.12

#### **bleaching of vegetable-tanned leather**

<process> removing oxidized tannins and insoluble materials from the surface layers of leather, in order to prevent cracking of the *grain* (3.46) and to lighten the colour

### 3.13

#### **boil test**

<performance> test of a piece of fully hydrated leather to check whether there is any shrinkage after placing in boiling water for 2 min to 3 min

Note 1 to entry: When the leather retains the original area, chrome tanning is considered complete.

**3.14****box calf leather**

<material> full chrome tanned calf leather, black or coloured, smooth or boarded, with a proteinic finish (3.39)

**3.15****break of leather**

<performance> surface wrinkles formed when the leather is bent, grain (3.46) inward

Note 1 to entry: Adjectives commonly used to describe this characteristic are “tight”, “fine”, “loose”, “coarse”, “pipey” and “flanky”. Generally, the finer the wrinkles or grain break, the better the quality of the leather.

**3.16****buffing**

<process> abrasive mechanical treatment to the grain (3.46) or flesh surface of the leather

Note 1 to entry: See also *snuffing* (3.90).

**3.17****burnishable leather**

<material> leather which will develop a shiny darkening appearance on rubbing or polishing

**3.18****burst strength**

<performance> force required to completely rupture the full thickness of the leather test piece

[SOURCE: ISO 3379:2015]

**3.19****chamois**

<material> leather made from the *flesh split* (3.93.2) of sheepskin or lamb skin (3.88), or from sheepskin or lamb skin (3.88) from which the grain (3.46) has been removed by frizzing, and tanned by processes involving the oxidation of marine oils in the skin, using solely such oils (full-oil chamois) or first an aldehyde and then such oils (combination chamois)

Note 1 to entry: Also leather made from the skin of a mountain antelope or chamois, but such leather is rare.

Note 2 to entry: In German language this term is also used to define chamois for clothing made out of deer skin.

Note 3 to entry: Chamois are also made out of goatskins.

**3.20****chrome-free leather**

<material> *hide* (3.48) or *skin* (3.88) converted to leather by a tanning agent free of chromium salts, where the total content of chromium in the tanned leather is less than or equal to 0,1% (mass of chromium/total dry weight of leather)

**3.21****chrome-tanned leather**

<material> *hide* (3.48) or *skin* (3.88) converted to leather either by treatment solely with chromium salts or with chromium salts together with a small amount of some other tanning agent, used merely to assist the chromium tanning process, and not in sufficient amount to alter the essential chromium tanned character of the leather

**3.22****coated and coated split leather**

<material> leather and *split leather* (3.93) where the surface coating, applied to the outer side, does not exceed one third of the total thickness of the product but is in excess of 0,15 mm

**3.23**

**cold crack resistance**

<performance> resistance of leather *finish* (3.39) to crack and peel when subject to bending/flexing under a temperature not exceeding –5 °C

**3.24**

**corrected grain leather**

<material> leather in which the *grain* (3.46) has been partially removed by *buffing* (3.16) or any similar mechanical treatment, and enhanced by a *finishing* (3.40) treatment

Note 1 to entry: The original pattern is generally identifiable except for heavily corrected grains.

**3.25**

**crocking**

<performance> transfer of colourant to the contact fabric when dry rubbed or wet rubbed

**3.26**

**curing**

<process> temporary preservation of *raw hides* (3.72) and *skins* (3.88)

**3.27**

**degreasing**

<process> removing natural fat from the *hide* (3.48) or *skin* (3.88) by emulsification in an aqueous media and/or using a solvent media

**3.28**

**degree of tannage**

<chemical characteristics> amount of fixed organic matter in 100 g of collagen

Note 1 to entry: Applicable to mineral-free leathers.

**3.29**

**deliming**

<process> removing the alkalinity of limed *pelt* (3.67)

**3.30**

**double face**

<material> double-sided leather made from lamb or sheep *skins* (3.88) or other animals with wool, dressed, tanned, softened and dyed for desired properties

**3.31**

**drawn grain**

<physical characteristics> unwanted distorted *grain* (3.46) appearance

**3.32**

**drum**

<equipment> cylindrical vessel with baffles inside and capable of rotation about its own axis, used for mechanical agitation in leather processing

**3.33**

**dry drumming**

<process> dry tumbling for leather with or without additives in a revolving *drum* (3.32) to soften the structure and improve the *nap* (3.58)

Note 1 to entry: Also referred to as dry milling.

**3.34**

**dry salting**

<process> *curing* (3.26) by which the *hides* (3.48) and *skins* (3.88) are treated with common salt and dried

**3.35****dyed crust leather**

<material> leather tanned, dyed, fatliquored and dried, before *finishing* (3.40)

**3.36****E.I. leather****East India leather**

<material> *vegetable-tanned leather* (3.100) with characteristic light beige or pale golden yellow colour manufactured by a process specific to a geographical location

Note 1 to entry: Registered Indian geographical indication number 95.

**3.37****fatliquor**

<material> natural or synthetic oil-based formulation that can be an emulsion, solution or dispersion used to lubricate leather fibres

**3.38****fatliquoring**

<process> application of *fatliquors* (3.37) for lubricating and softening leathers

**3.39****finish**

<material> coating on a leather surface

**3.40****finishing**

<process> chemical and/or mechanical operations carried out on crust leathers to impart the desired properties for the intended final use of the leather

**3.41****flexural endurance**

<performance> ability of finished leather to endure the stress applied due to repeated bending

**3.42****fog resistance**

<performance> resistance to the release of semi-volatile and low-volatile substances present in the leather at high ambient temperature

**3.43****full grain leather**

<material> leather having kept its entire *grain* (3.46), with none of the surface removed by any corrective mechanical treatment

**3.44****fur dressing**

<process> *finishing* (3.40) fur leather

Note 1 to entry: When dressing the furs, they are sheared (or trimmed), bleached (optional), dyed, combed and finally plush wheeled.

**3.45****glazing**

<process> operation of producing a bright, glossy or glasslike *finish* (3.39) on the *grain* (3.46) surface of leather

**3.46****grain**

<material> outer side of the leather once the hair or wool and epidermis have been removed, characterized by follicles from hair or wool, feather follicles or scales, specific to each animal species

**3.47**

**grain crack resistance**

<performance> resistance of the *grain* (3.46) surface of the leather to rupture when subjected to mechanical stress

**3.48**

**hide**

<material> raw *skin* (3.88) of a mature or fully-grown animal of the larger kind

EXAMPLE Cattle and buffalo.

**3.49**

**hide powder**

<material> powder from well-washed, dried, delimed *pelt* (3.67) disintegrated using a grinding mill

**3.50**

**hide substance**

<material> amount of collagenous substance in 100 g of dry leather

**3.51**

**laminated leather**

<material> leather where a foil (polymeric film) layer, not exceeding one third of the total thickness, is applied by a transfer coating process

Note 1 to entry: Other methods of applying a foil (polymeric film) are plating, embossing and ironing.

**3.52**

**leather**

<material> *hide* (3.48) or *skin* (3.88) with its original fibrous structure more or less intact, tanned to be imputrescible, where the hair or wool may or may not have been removed, whether or not the *hide* (3.48) or *skin* (3.88) has been split into layers or segmented either before or after *tanning* (3.97) and where any surface coating or surface layer, however applied, is not thicker than 0,15 mm

Note 1 to entry: If the tanned hide or skin is disintegrated mechanically and/or chemically into fibrous particles, small pieces or powders, and is then, with or without the combination of a binding agent, made into sheets or other forms, such sheets or forms are not leather.

Note 2 to entry: If the grain layer has been completely removed, the term leather is not to be used without further qualification, e.g. *split leather* (3.93), suede leather.

Note 3 to entry: The material shall be of animal origin.

**3.53**

**lime blast**

<material> formation of patches of insoluble calcium carbonate by the reaction of atmospheric carbon dioxide with the lime present in the *pelts* (3.67) when they are exposed to the atmosphere

**3.54**

**liming**

<process> treating *raw hides* (3.72) and *skins* (3.88) with lime liquor with a view to plumping and/or unhairing

**3.55**

**loose grain**

<physical characteristics> *grain* (3.46) whose attachment to corium has been eroded, giving rise to pronounced wrinkles when leather is bent, grain inside

**3.56**

**masking agent**

<material> weak acids and their salts added during mineral *tanning* (3.97) to prevent precipitation of tanning salts

**3.57****metal-free leather**

<material> *hide* (3.48) or *skin* (3.88) converted to leather, where the total content of all tanning metals (Cr, Al, Ti, Zr, Fe) in the leather is less than or equal to 0,1 % (mass of all metals/total dry weight of leather)

**3.58****nap**

<material> vertical and fine fibres cut short enough to produce a velvety two-tone effect when a two-way stroke is applied by hand

**3.59****nappa**

<material> soft *full grain leather* (3.43), through dyed and lightly finished

**3.60****nappalan**

<material> wool-on sheepskin, finished by coating on the reverse side

**3.61****nappalan finish**

<physical characteristic> *finishing* (3.40) on the flesh side of *hides* (3.48) and *skins* (3.88)

**3.62****neutralization**

<process> raising the pH of a mineral-tanned leather towards neutral from an acidic zone by treatment with a solution of salt of a weak alkali or buffer mixture

**3.63****nubuck**

<material> leather snuffed (buffed) to give velvety effect, where the original *grain* (3.46) pattern is still visible

**3.64****organic-tanned leather**

<material> *hide* (3.48) or *skin* (3.88) converted to leather by natural or synthetic organic tanning agents, where the total content of tanning metals (Cr, Al, Ti, Zr, Fe) is less than or equal to 0,3 % (mass of all metals/total dry weight of leather)

**3.65****parchment**

<material> dry, translucent or opaque untanned *hide* (3.48) or *skin* (3.88) material

**3.66****patent leather**

<material> leather with generally a mirror-like effect, obtained by application of a layer of pigmented or non-pigmented varnishes, or synthetic resins, whose thickness does not exceed one third of the total thickness of the product

Note 1 to entry: The term patent *split leather* (3.93) also exists.

Note 2 to entry: Varnishes and lacquers are usually based on linseed oil, nitrocellulose, polyurethane and/or other synthetic resins.

**3.67****pelt**

<material> *hide* (3.48) or *skin* (3.88) prepared for *tanning* (3.97) by removal of the hair or the wool, epidermis and flesh

Note 1 to entry: The term pelt can also be used for the skin of an animal with fur or hair still on it.

**3.68**

**pickling**

<process> treating the *pelts* (3.67), *hides* (3.48) or *skins* (3.88) with acid and salt to lower the pH

**3.69**

**pigmented leather**

<material> leather whose natural *grain* (3.46) or surface is completely concealed with a *finish* (3.39) containing pigments

Note 1 to entry: The term pigmented *split leather* (3.93) also exists.

**3.70**

**plush wheeling**

<process> hand-polishing using a rotating wheel with a grinder stone/plush cloth

**3.71**

**pull-up leather**

<material> leather that, by design, lightens in colour when stretched

**3.72**

**raw hide**

<material> *hide* (3.48) which has only been treated to preserve it

**3.73**

**rub fastness**

<performance> fastness to rubbing, with a felt pad, either dry or wet

**3.74**

**run**

<physical characteristic> elastic stretch of leather in one direction

**3.75**

**salt pitting**

<physical characteristic> *grain* (3.46) damage caused by salts

**3.76**

**salt stain**

<physical characteristic> stain caused by halophilic bacteria present in wet-salted *hides* (3.48) and *skins* (3.88) and also by salt contaminants

**3.77**

**sammying**

<process> reducing the moisture content of *pelts* (3.67) or leathers by squeezing between the rollers in a machine

**3.78**

**scudding**

<process> removing scud from unhaired *hides* (3.48) and *skins* (3.88) by scraping or chemical treatment

**3.79**

**semi-aniline leather**

<material> leather that has been coated with a *finish* (3.39) containing a small amount of pigment, so that the natural *grain* (3.46) is clearly visible

**3.80**

**semi-chrome leather**

<material> leather which has been tanned first with vegetable tannin and then retanned with chromium salts

**3.81****setting**

<process> reducing the wrinkles/growth marks and smoothing the *grain* (3.46) by pressing between two rollers

**3.82****sharpening agents**

<material> reducing agent whose addition accelerates the loosening of hair

**3.83****shaving**

<process> mechanical operation carried out to make the thickness of the leather uniform

**3.84****shearling**

<material> tanned and dressed *skin* (3.88) of a sheep still bearing the original wool that has been cut to an approximately even length

**3.85****shrinkage temperature**

<performance> temperature at which an untanned *skin* (3.88) or leather immersed in a water bath starts shrinking when heated uniformly

**3.86****shrunk grain leather**

<material> leather specially tanned so as to shrink the *grain* (3.46) layer, with a grain surface of prominent but uneven folds and valleys

**3.87****side**

<material> half of a whole *hide* (3.48), obtained by dividing it along the line of the backbone

**3.88****skin**

<material> outer covering of smaller types of animals, e.g. sheep and goats, or of the immature animals of the larger species, e.g. calves

**3.89****skiver**

<material> tanned outer or *grain split* (3.93.1), typically of a sheepskin or lambskin, but sometimes applied to goatskin or calfskin

**3.90****snuffing**

<process> lightly *buffing* (3.16) the *grain* (3.46) surface of leather, usually by a machine with an abrasive covered cylinder

**3.91****soaking**

<process> rehydration of *raw hides* (3.72) and *skins* (3.88) to their original moisture and washing out the curing salt, dirt, dung and adhering blood

**3.92****spew****spue**

<material> white surface deposition emanating from the leather

**3.93**

**split leather**

<material> layer from a *hide* (3.48) or *skin* (3.88) made from a *flesh split* (3.93.2) or a *middle split* (3.93.3), without any *grain* (3.46) structure, tanned to be impu-tescible

Note 1 to entry: A split is a layer of hide or skin obtained by dividing it horizontally (splitting) to obtain at least two separate layers; the top layer is called *grain split* (3.93.1), and the bottom layer is called *flesh split*; for heavy hides also a middle split can be obtained.

Note 2 to entry: If the name of the animal whence it originates, or the part of the animal whence it comes, is included in the description, the term “split leather” will be used as a noun, e.g. pig split leather.

**3.93.1**

**grain split**

<material> upper or top layer of a *hide* (3.48) or *skin* (3.88) with grain surface, separated from the hide or skin by splitting horizontally in a machine

**3.93.2**

**flesh split**

<material> inner or under layer of a *hide* (3.48) or *skin* (3.88), separated from the hide or skin by splitting horizontally in a machine

**3.93.3**

**middle split**

<material> middle layer of a heavy *hide* (3.48) or *skin* (3.88), separated from the hide or skin by splitting horizontally in a machine

**3.94**

**substance**

<physical characteristics> thickness of leather

**3.95**

**suede**

**velour**

<material> leather or *split leather* (3.93) whose wearing surface has been mechanically finished to produce a velvet-like *nap* (3.58)

**3.96**

**T/NT ratio**

<chemical characteristic> ratio of tannins to non-tannins in a vegetable *tanning* (3.97) material

**3.97**

**tanning**

<process> treatment of *hide* (3.48) or *skin* (3.88) with extracts of natural products (e.g. bark, leaves, seeds) or chemical agents (e.g. chromium, aluminium, organic compounds) to stabilize against heat, enzymatic attack and thermo-mechanical stress

**3.98**

**tear strength**

<performance> force required to tear the leather

Note 1 to entry: Testing is performed on a material of uniform thickness that has been partially cut, creating a tear initiation site.

**3.99**

**tensile strength**

<performance> force per unit of the original cross-sectional area applied at the time of rupture of the test piece

**3.100****vegetable-tanned leather**

<material> *hide* (3.48) or *skin* (3.88) converted to leather by vegetable tanning agents, where the total content of tanning metals (Cr, Al, Ti, Zr, Fe) is less than or equal to 0,3 % (mass of all metals/total dry weight of leather)

**3.101****wet-blue**

<material> leather in a wet condition after chrome tanning

Note 1 to entry: Wet-blue is an intermediate stage of manufacturing.

**3.102****wet salting**

<process> *curing* (3.26) of *hides* (3.48) and *skins* (3.88) by treating with salt, and then draining so that the product remains wet

**3.103****wet-white**

<material> leather in a wet condition after tanning with substances, e.g., zirconium salts, aluminium salts, modified aldehydes, glutaraldehydes and syntans, that confer a whitish colour

Note 1 to entry: Wet-white is an intermediate stage of manufacturing.

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## Bibliography

- [1] EN 15987:2015, *Leather — Terminology — Key definitions for the leather trade*

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