

# INTERNATIONAL STANDARD

# ISO 7482-1

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## Raw goat skins —

### Part 1: Descriptions of defects

*Peaux brutes de caprins —*

*Partie 1: Descriptions des défauts*

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## Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 7482-1, was prepared by Technical Committee ISO/TC 120, *Leather*, Subcommittee SC 1, *Raw hides and skins, including pickled pelts*.

ISO 7482 consists of the following parts, under the general title *Raw goat skins*:

- *Part 1: Descriptions of defects*
- *Part 2: Guidelines for grading on the basis of mass and size*
- *Part 3: Guidelines for grading on the basis of defects*

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# Raw goat skins —

## Part 1: Descriptions of defects

### 1 Scope

This International Standard describes the defects which may occur on raw goat skins (see note 1). It is applicable to fresh and cured (air dried, wet salted or dry salted) goat skins.

NOTE 1 - Certain defects, which are not defined in this standard, may appear only during or after the tanning process, without there being any indication of their presence on the raw skin.

### 2 Terms Relating to Presentation of Trim

#### 2.1 Folded skins

Skins without head, without teats, shanks cut short, tail completely emptied, presented folded along the the line of the backbone in the centre.

#### 2.2 Open (flat) skins

Skins without head, without teats, shanks cut short, tail completely emptied, presented flat, with the line of the backbone in the centre.

#### 2.3 Sleeve skins

Skins without head, without teats, with legs cut short, tail completely emptied, presented as a sleeve, hair to the inside, folded along the line of the backbone.

### 3 Terms Relating to Defects in Goat Skins

The defects defined in this standard are divided into three categories :

- a) Ante-mortem defects;
- b) Post-mortem defects; and
- c) Preserving defects.

### 3.1 Ante-mortem defects

#### 3.1.1 *Ecchymosis*

Bruise on the flesh side of the skin, varying from dark red to brown, caused by sub-cutaneous bleeding, especially if the animal has been struck by a blunt object or if parts of the coat have been roughly plucked before slaughter.

#### 3.1.2 Fire-marks

Goat skins deteriorate in quality due to fire-mark. This is a man-made defect. Fire-mark is generally inflicted in different parts of the body with a view to cure some ailments or to indicate ownership of the animal. In raw skins, the defect is readily seen on the grain side.

#### 3.1.3 Grain damage

All visible and permanent alterations on the grain side of the skin, whatever their nature or origin (for example, wounds, scars, abscesses, rubbing of the shoulders or groin).

#### 3.1.4 Greasy skin

Skin in which the histological structure of the dermis is abnormally loose due to the penetration of grease. This state is revealed when the grease migrates due to localised heating after drying. After tanning, this may also result in an empty skin or a hollow skin, and can give rise to an alteration in the mass/surface ratio.

#### 3.1.5 Pox marks

Hard, circular lesion resulting in scar marks on the grain and opaque marks (due to the pus formed) on the flesh side of the skins. Pus in pox marks is also visible on the flesh side of the dried goat skins specially of African origin.

#### 3.1.6 Ringworm

Disease caused by fungal species of two genera *Microsporum* and *Trichophyton* mostly in goat skins. The lesions appear as raised round, crusty patches. Ringworm infections result in loss of hair in the goat skins. The incidence of ringworm affected skin is insignificant.

### 3.1.7 Skin infested with Ectoparasites

#### 3.1.7.1 By *Demodex caprae*

Goat skins are greatly affected by *Demodex caprae* causing Demodectic Mange (Follicular Mange). Nodules are visible on both the grain and flesh sides of goat skins. These mites may appear in :

- i) nodular forms;
- ii) squamous forms; and
- iii) acute forms

Raised nodules of varying size (several mm to 2 cm) can be seen on the flesh side of the skins. The small nodules are not altered by beamhouse operations and show up on the tanned skin in hardening of the tissues. On the other hand, if they are larger than 1 cm, they can form a pit or hole by splitting the grain.

#### 3.1.7.2 By lice

Because of the irritation caused by the biting or sucking type of lice, the animals scratch the affected parts of the body which leads to wounds and bruises. Lice species belonging to the genera *Linognathus* are common to goat. Goat are also affected by biting lice (*Damalinia* or *Bovicola spp.*). Skins infested with lice (*Linognathus stenopsis*, Order anoptura) show transparency.

#### 3.1.7.3 *Psoroptic caprae*

Psoroptic mange defects in goat skins are caused by *Psoroptes caprae*. It is a seasonal defect and appears during rainy season. The lesions appear as small hard pustular nodes and are covered by long hair. After liming, the nodes are removed leaving a depression on the grain particularly on both sides of backbone. In finished leather the defect appears on the grain as innumerable pin prick marks on both sides of the backbone.

#### 3.1.7.4 *Sarcoptes scabiei*

Sarcoptic mange is caused by *Sarcoptes scabiei* mites burrow into the substance of the skins of goat causing galleries. Marked thickening and wrinkling of the skin takes place associated with the formation of scab as well as bald patches. Grain surface of the leather becomes rough showing criss-cross tunnels.

#### 3.1.7.5 By ticks

Skin showing considerable hardening of the tissue caused by the bites of parasites called ticks, together with the presence of their discharge in the coat and subsequently leading to pits on the grain surface of tanned skins.

Ticks affect skin quality to a considerable extent. Ticks responsible for tick damage though belong to various genera like *Ixodus*, *Haemophysalis*, *Dermacentor*, *Hyalomma*, *Boophilus* and *Rhipicephalus*, the most common live stock ticks responsible for damages in goat skins belong to the general *Hyalomma* and *Boophilus*. They leave scar mark on the grain side of finished leather. Ticks can also leave holes in the skins and remains of ticks can sometimes be found.

### 3.1.7.6 By warbles

Skin on which holes or nodules can be seen on the flesh side caused by the migration of *hypoderma crossi* or *hypoderma actaen* larvae (Order *Diptera*). Extent of damage caused by warbles may be severe.

### 3.1.8 Thin skin

Skin in which the quality of the fibres constituting the tissue is rendered defective by an abnormal thinning in the weeks immediately preceding slaughter of the animal because of any illness and/or malnutrition. After tanning it produces an empty skin or a hollow skin.

## 3.2 Post-mortem defects

### 3.2.1 Butcher strain

Defects caused by improper flaying resulting in grain damage and/or reduction in tensile strength of leather produced from the same.

### 3.2.2 Deformation

Pattern which gives the skin an irregular shape and causes tear during processing. It includes over trimming of the neck or feet and/or poor off-take of the skins which deforms the skin and leads to a loss in surface area. Deformation is also caused when the backbone line forms a diagonal of the skins.

### 3.2.3 Extras

Any useless parts attached naturally to the skin (horns, hooves, ears, etc.) and which, by their mass, falsify the yield of the batch.

NOTE 2 - This yield can also be falsified by an excess of salt or preserving product.

### **3.2.4 Flay cuts**

Accident in the skinning resulting from the knife or skinning tool completely piercing the skin.

### **3.2.5 Freezing**

Degradation may be caused by lowering in temperature to sub-zero for storage. This hardening of the skin is liable to cause splitting of the grain if the skin is incorrectly dried.

### **3.2.6 Nicking**

A score produced in the dermis by the knife or flaying tool, without complete perforation.

### **3.2.7 Patches of grease or flesh**

All pieces of fat or flesh which remain attached to the skin and cause a defect in the grain, by preventing correct penetration or dehydration of the skin. Moreover, these patches can conceal a skinning defect such as a nick.

## **3.3 Preserving and storage defects**

Raw goat skins can be preserved using various methods. Depending on the method used, raw goat skins can be presented in the form of skins preserved in the dry state (air dried skins) or in the salted state (wet salted skins) or in the dry salted state (dry salted skins). Each of these states has corresponding characteristic defects.

### **3.3.1 Dry salted state**

#### **3.3.1.1 Defects caused by mineral salts**

Discolouration of the grain or flesh side of the skin and alteration of the structure of the dermis caused by the combined action of mineral salts, in particular those derived from iron, and the moisture in the ambient air. (These defects are especially noted on skins preserved for a long time).

### 3.3.2 General case

#### 3.3.2.1 Putrefaction (Decay)

Partial decomposition of the skin revealed in a premature hair slip, which can go as far as the rotten skin stage. Putrefaction of the flanks, shanks or butt results due to the fact that, in these areas, the skin has not been suitably opened and not stretched from the start of drying. Wetting during storage, slow drying, piling without cooling and case hardening also result in putrefaction.

### 3.3.3 Raw dry state

#### 3.3.3.1 Blood stains

Presence of congealed blood visible on the flesh side of the skin, which can lead to staining after tanning.

#### 3.3.3.2 Case hardening

Decaying of the internal layers of the skin, caused by the surface being dried too rapidly, thus preventing the dehydration of the deeper layers of the skin; this can lead to a separation of the external layers.

#### 3.3.3.3 By *Dermestes*

Damage caused on the flesh side of the skin by *Dermestes* larvae eating the dermis, thus reducing the strength of the skin and altering the regularity of its thickness. This may possibly lead to damage on the grain side of the skin and even holes.

#### 3.3.3.4 Folding crack

When skins are sun dried, they may produce grain crack during folding.

#### 3.3.3.5 Glossiness

Hard and brittle form, of glossy or shiny appearance, taken on by the skin following localised defective drying, most frequently in the sun. In the case of kid skins, this defect can be caused by excessive tension applied to the skin during frame drying.

### **3.3.3.6 Mildew**

Visible development of saprophytic fungus on the flesh side of the skin, promoted by prolonged storage in too humid an atmosphere ; it can also result in an alteration in the grain on the tanned skin.

### **3.3.3.7 Sticking**

Sticking of the skins, flesh side to flesh side, from the start of drying and causing decay.

### **3.3.3.8 Strain mark**

Defect caused by poor handling of dry skins.

## **3.3.4 Salted state**

### **3.3.4.1 Red heat**

Surfaces coloured red or violet (see NOTE 3), in the latter case often accompanied by an exudation.

NOTE 3- These are usually associated with the growth of halophilic bacteria (red heat). The development of this problem can be avoided by the inclusion in the curing salt of suitable preservatives.

### **3.3.4.2 Salting defect**

Putrefaction from inadequate salting or loss of salt because of storage in the open during wet weather.

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