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Leather- Red Hair Sheep Skin- Part 1: Description of defects

CD stage

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Foreword

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ISO 23974‑1 was prepared by Technical Committee ISO/TC 120, *Leather*, Subcommittee SC 1, Raw hides and skins including pickled pelts.

ISO 23974 consists of the following parts, under the general title *Leather — Red Hair Sheep Skin*:

* *Part 1: Description of defects*
* *Part 2: Guidelines for grading on the basis of defects*
* *Part 3: Guidelines for grading on the basis of mass & size*

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Introduction

Red hair sheep are available in many regions of the world especially Asia and African continents. Red hair sheep skins posses few unique features and used for specialized articles. The increasing trade for such skins among countries warrant standard for international community.

The references for defects are given below:

Jean J.Tancous, “Skin, Hide and Leather Defects”, Lee Corporation, 1992

R.A.Venkatesan, “Surface Defects of Hides, Skins and Leather”, An Indian Leather Publication, 1989

Leather — Red Hair Sheep Skin — Part 1: Description of defects

# Scope

This draft international standard describes the defects which may occur on raw red hair sheep skins. It is applicable to fresh and cured (air dried, wet salted or dry salted) red hair sheep skins.

# Normative references

There are no normative references in this document.

# Terms and definitions

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

ISO and IEC maintain terminology database for use in standarization at the following addresses:

— ISO Online browing platform: available at <https://www.iso.org/obp>

— IEC Electropedia: available at <https://www.electropedia.org/>

##

## open (flat) skins

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

##

## sleeve skins

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

##

## sheep skins

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

a) Ante-mortem defects;

b) Post-mortem defects; and

c) Preservation and storage defects

# Defects

## Ante-mortem defects

### Abscess

It is known that an abscess is usually a circumscribed collection of pus. Cutaneous abscess are formed by the pyogenic organisms of different bacterial groups e.g. Staphylococcus Streptococcus, Corynebacterium, Actinobacillus and also due to the fungal infection. Depending upon its location within the skin, abscesses may be termed as sub-epidermal when located in the dermis just beneath the epidermis and phlegmonous, showing circumscribed suppuration in the sub-cutaneous connective tissue.

### Fire-marks

Red hair sheep 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.

### Grain damage

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

### 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.

### Defects caused by Ectoparasites

#### 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. Skins infested with lice show transparency.

#### Sheep scab

Psoroptic mange defects in skins are caused by Psoroptes caprae. 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 defects on the grain as innumerable pin prick marks on both sides of the backbone.

#### 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 Lxodus, 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.

#### Bobble

This is considered to be a viral disease prevalent in sheep skins. In raw skin, the lesions are generally visible on the flesh side as round spots but after unhairing they become more prominent on the grain side. Bobble lesions have permanent stains on both chrome and vegetable tanned leathers and render them unsuitable for quality leathers.

#### 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.

#### Veininess

There are many causes for veininess. This could be due to enlarging of the blood vessels in winter months. Veininess is also caused due to improper handling of stock after slaughter.

#### Sub-cutaneous haemorrhage

Severe localised congestion on the flesh side resulting in irregular spots on the skins.

## Post-mortem defects

### Butcher strain

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

### 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.

### Flay cuts

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

### Nicking

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

## Preservation and storage defects

### Dry salted state

#### 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 derived from iron, and the moisture in the ambient air. (These defects are especially noted on skins preserved for a long time).

### General case

#### Putrefaction (Decay)

Partial decomposition of the skin revealed in a premature hair slip, which can go as far as the rotten skin stage. Wetting during storage, slow drying, piling without cooling and case hardening also result in putrefaction.

### Raw dry state

#### Blood stains

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

#### 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.

#### Folding crack

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

#### Glossiness

Hard and brittle form, of glossy or shiny appearance taken on by the skin following localised defective drying, most frequently in the sun.

#### Mildew

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

#### Sticking

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

#### Stain mark

Defect caused by poor handling of dry skins.

### Salted state

#### Red heat

Surface coloured red or violet in the latter case often accompanied by an exudation.

#### Salting defect

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