BRITISH STANDARD

BS 6715 : 1991

Specification for

Chamois leather

Peaux de chamois — Spécifications

Gemsenlader

BSI STANDARDS

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Textiles and Clothing Standards Policy Committee (TCM/-) to Technical Committee TCM/17, upon which the following bodies were represented:

British Clothing Industry Association
British Footwear Manufacturers' Federation
British Leather Confederation
Chief and Assistant Chief Fire Officers' Association
Consumer Policy Committee of BSI
Footwear Distributors' Federation
Hides and Allied Trades Improvement Society
Institute of Trading Standards Administration
Ministry of Defence
Overseas Development Natural Resources Institute
SATRA Footwear Technology Centre
Scottish Hide, Skin and Tallow Markets Limited
Society of Leather Technologists and Chemists

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Contents

Foreword

This British Standard has been prepared under the direction of the Textiles and Clothing Standards Policy Committee and is a revision of BS 6715 : 1987 which is withdrawn.

The principal changes from the previous edition are as follows.

(a) Reference to BS 4804, which is considered obsolete and out of line with commercial practice, has been deleted.

(b) There is a recommendation that size should now be measured in accordance with the mechanical pinwheel method currently being discussed within the International Organization for Standardization and the International Council of Tanners.

(c) In cases of dispute, for measurement of size and mass per unit area, it is now considered that greater consistency may be achieved if samples are preconditioned for 12 h at a relative humidity not less than 75 % and a temperature not greater than 30 °C and subsequently conditioned as specified in BS 3144.

At the time of publication, no corresponding international standard exists.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Specification

1 Scope

This British Standard specifies requirements for the materials, manufacture, chemical and physical properties, sampling and testing and marking of chamois leather.

NOTE. The titles of the publications referred to in this standard are listed on the inside back cover.

2 Definitions

For the purposes of this British Standard, the definitions given in BS 2780 apply, together with the following.

2.1 whole skins

Skins which may have been given a small amount of trimming but not so as to reduce them to rectangular form.

2.2 flay cuts

Cuts in the chamois leather caused by a knife when the skin was removed from the animal.

2.3 cockly places

Areas of the skin which do not absorb the dressing in the same way as the rest of the skin and are harder in texture and usually darker in colour.

2.4 holes

Holes through the skin greater than 1 mm in diameter.

2.5 sewings

Holes in a chamois leather which have been sewn up.

3 Materials and manufacture

3.1 Materials

Chamois leather shall be prepared from either sheepskins or lambskins from which the grain has been removed by frizing or splitting.

3.2 Manufacture

Chamois leather shall be manufactured by one of the following methods of processing.

(a) *Full oil process.* The skins shall be tanned with marine oils.

(b) *Combination process.* The skins shall be tanned with formaldehyde, or other aldehyde, and marine oils.

4 Classification by quality

4.1 General

Chamois leather shall be classified according to its faults in accordance with **4.2** and **4.3**.

4.2 First class

A chamois leather shall be classified first class if all the following apply:

(a) the chamois leather is soft, and of even thickness;

(b) the chamois leather is finished on both sides;

(c) the chamois leather is free from thin places, flay cuts, hard and cockly places, holes and sewings.

4.3 Second class

A chamois leather shall be classified second class if all the following apply:

(a) the chamois leather is soft;

(b) the chamois leather is finished on one or both sides;

(c) the chamois leather is lightly flayed, i.e. contains a maximum of three flay cuts and scar tissue, each of which is not greater than 25 mm in length;

(d) the chamois leather is free from hard and cockly places, holes and sewings.

5 Sampling

Samples shall be taken for testing in accordance with method 1 of BS 3144 : 1968 except in cases of dispute, when the sampling procedure given in appendix A shall be followed.

6 Conditioning

Samples shall be conditioned in accordance with BS 3144. In cases of dispute, for measurement of size and mass per unit area, samples shall be preconditioned for 12 h at a relative humidity not less than 75 % and a temperature not greater than 30 °C and subsequently conditioned as specified in BS 3144.

7 Physical properties

7.1 Size

Chamois leather shall be supplied as trimmed whole skins or squares.

NOTE. It is recommended that size should be measured by the mechanical pinwheel method currently under review by the International Organization for Standardization (ISO) and the International Council of Tanners [1].

[1] For information on the availability of suitable apparatus to perform this measurement, apply to Enquiry Section, BSI, Linford Wood, Milton Keynes, MK14 6LE quoting the number of this standard and the clause number referring to the items concerned. Enclose a stamped addressed envelope for reply.

Table 1. Chemical properties		
Chemical property	**Test procedure**	**Requirements for first class and second class leathers**
pH	Method 9 of BS 1309 : 1974	5.0 to 10.5
Oils and fats soluble in dichloromethane	Method 4 of BS 1309 : 1974	15 % max. [1]
Sulphated total ash	Method 6 of BS 1309 : 1974	24 % max. [1]
Total oils, fat and ash [2]	Methods 4 and 6 of BS 1309 : 1974	35 % max. [1]
Water absorption	Appendix B	375 % min. [1]

NOTE 1. For Ministry of Defence items only, the minimum percentage water absorption is 400 %.

NOTE 2. If sampling has been carried out in accordance with appendix A, unless each sample meets all the chemical requirements specified in table 1, the lot should be deemed not to comply with this standard. If only one sample fails to meet only one requirement, a further set of samples should be drawn (see table 2) and repeat tests made for that requirement. If any one of the repeat samples does not meet that requirement, the lot should be deemed not to comply with this standard.

[1] Values are expressed as a percentage based on the mass of fat-free leather containing 14 % moisture.

[2] This property is an arithmetic sum of oils, fats, other solubles and sulphated total ash.

7.2 Mass per unit area

The minimum mass per unit area shall be 0.300 kg/m^2 (0.0300 g/cm^2) for first class leathers (see **4.2**) and 0.225 kg/m^2 (0.0225 g/cm^2) for second class leathers (see **4.3**).

8 Chemical properties

The finished leather shall comply with the requirements given in table 1, when tested in accordance with the methods specified therein.

Table 2. Number of leathers to be tested in cases of dispute		
Number of leathers in lot	**Minimum number of leathers to be tested**	
	For mass per unit area	**For all other requirements**
Up to 500	10	2
501 to 1000	20	2
1001 to 2000	20	3
Over 2000	20	4

9 Marking

9.1 The leather shall be marked with the manufacturer's name, trade mark or other means of identification.

9.2 The leather shall be supplied with a label or invoice marked with the following information:

(a) the number and date of this British Standard, i.e. BS 6715 : 1991; [1]

(b) the classification, first or second class (see clause **4**);

(c) size (see **7.1**);

(d) a warning that 'chamois leather is a natural product and may subsequently permanently relax if stored in or exposed to a warm, dry atmosphere'.

NOTE. The Nato stock number, 8330-99-132-7703, is marked on Ministry of Defence items only.

[1] Marking BS 6715 : 1991 on or in relation to a product represents a manufacturer's declaration of conformity, i.e. a claim by or on behalf of the manufacturer that the product meets the requirements of the standard. The accuracy of the claim is therefore solely the responsibility of the person making the claim. Such a declaration is not to be confused with third party certification of conformity, which may also be desirable.

Appendices

Appendix A. Sampling in cases of dispute

A.1 Draw the number of leathers to be tested from the lot in accordance with table 2.

A.2 Draw the leathers for test so as to be representative of the lot and sample in accordance with method 1 of BS 3144 : 1968.

Appendix B. Determination of water absorption

B.1 Principle

A specimen of leather, after initial wetting, is immersed in water for a given time, allowed to drain for a given time and weighed. After drying and reweighing, the absorption of water is calculated on the basis of fat-free leather containing 14 % moisture.

B.2 Apparatus and reagents

B.2.1 *Distilled or deionized water.*

B.2.2 *Balance,* with an accuracy of ± 0.01 g.

B.2.3 *12 polyvinyl chloride (PVC) rods,* of approximate dimensions 25 mm × 10 mm diameter and nominal mass 2.5 g.

B.2.4 *Glass plate,* of minimum dimensions 300 mm square and inclined at a nominal angle of 45°.

B.2.5 *Wide necked polyethylene jars,* of 1 L capacity, with watertight closures.

B.2.6 *Rotating shaker,* operating at 50 ± 10 r/min.

B.2.7 *Air oven,* capable of being maintained at 102 ± 2 °C.

B.2.8 *Desiccator.*

B.3 Test specimen

Cut a test specimen of minimum dimensions 120 mm × 180 mm from the butt of whole skins or the middle part of squares. Avoid the backbone when sampling whole skins. The 180 mm side shall be parallel to the backbone.

B.4 Procedure

B.4.1 Pour 350 mL of distilled or deionized water (**B.2.1**) at 20 ± 2 °C into a 1 L polyethylene jar (**B.2.5**). Add the test specimen of chamois leather and 12 PVC rods (**B.2.3**). Place on a rotating shaker (**B.2.6**) for 15 min. Pour off the water and repeat with a further 350 mL of distilled or deionized water. Remove the test specimen and wring by hand.

B.4.2 Place the washed test specimen in a 1 L polyethylene jar. Add 350 mL of distilled or deionized water and 12 PVC rods and place on the rotating shaker for 15 min. Remove the test specimen without squeezing and place on the glass plate (**B.2.4**) such that the diagonal is parallel to the inclined axis of the plate. Allow to drain for 2 min.

B.4.3 Weigh to the nearest 0.1 g.

B.4.4 Wring out the test specimen by hand and allow to dry at room temperature for 24 h.

B.4.5 Dry the test specimen in an air oven (**B.2.7**) at 102 ± 2 °C for not less than 18 h. Cool in a desiccator (**B.2.8**) for 30 min. Reweigh.

B.5 Calculation

The percentage of water P retained by the test specimen, calculated on fat-free leather containing 14 % moisture, is given by the formula:

$$P = \left(\frac{W_1 - X}{X}\right) 100$$

where

$$X = \left\{W_0 - W_0\left(\frac{G}{86 + G}\right)\right\}\frac{100}{86}$$

where

W_1 is the initial mass of the test specimen determined in accordance with **B.4.3** (in g);

W_0 is the final mass of the test specimen determined in accordance with **B.4.5** (in g);

G is the percentage fat determined in accordance with method 4 of BS 1309 : 1974.

B.6 Test report

The test report shall include the following information:

(a) identification of sample and date of test;

(b) method of test, i.e. determination of water absorption, as described in appendix B of BS 6715 : 1991;

(c) the percentage water absorption;

(d) details of any deviations from the procedure.