INTERNATIONAL STANDARD

ISO 11859

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Textile floor coverings — Pure wool, hand-knotted pile carpets — Specification

Revêtements de sol textiles — Moquettes pure laine à points noués à la main — Spécifications

Reference number
ISO 11859:1999(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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 11859 was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 12¸ *Textile floor coverings*.

Annexes A and B form a normative part of this International Standard.

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Introduction

Hand-knotted pile carpets are different from machine made, woven, bonded and tufted carpets normally used for different applications. It is recognized that as far as possible, the testing should be carried out in a non-destructive manner.

Textile floor coverings — Pure wool, hand-knotted pile carpets — Specification

1 Scope

This International Standard specifies requirements for hand-knotted carpets produced from pure wool, of dimensions agreed between the purchaser and the supplier.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 105-B02:1994, *Textiles — Tests for colour fastness — Part B02 : Colour fastness to artificial light: Xenon arc fading lamp test.*

ISO 105-E01:1994, *Textiles — Tests for colour fastness — Part E01 : Colour fastness to water.*

ISO 105-X12:1993, *Textiles — Tests for colour fastness — Part X12 : Colour fastness to rubbing.*

ISO 139:1973, *Textiles — Standard atmospheres for conditioning and testing.*

ISO 1763:1986, *Carpets — Determination of number of tufts and/or loops per unit length and per unit area.*

ISO 1833:1977, *Textiles — Binary fibre mixtures — Quantitative chemical analysis.*

ISO 2424:1992, *Textile floor coverings — Vocabulary.*

ISO 2549:1972, *Textile floor coverings — Hand-knotted carpets — Determination of tuft leg length above the woven ground.*

ISO 3018:1974, *Textile floor coverings — Rectangular textile floor coverings — Determination of dimensions.*

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions of ISO 2424:1992 apply.

4 Requirements

Hand-knotted carpets shall conform to requirements given in Table 1 when tested in accordance with the methods given therein.

Table 1 — Requirements

Characteristic	Requirement	Test Method
Wool content of pile yarn, %	100[a]	ISO 1833:1977
Tolerance on total length and total width for carpet widths up to 2 m	Nominal value ± 2 %	ISO 3018:1974
Tolerance on total length and total width for carpet widths over 2 m	Nominal value ± 1,5 %	
Tolerance on pile height or tuft leg length above the woven ground	Nominal value ± 1 mm	ISO 2549:1972
Tolerance on number of knots/m^2	Nominal value ± 5 %	Annex A and ISO 1763:1986
Theoretical pile density, g/cm^3	⩾ 0,09	Annex B
Colour fastness to artificial light	⩾ 4	ISO 105-B02:1994
Colour fastness to rubbing (dry)	⩾ 3-4	ISO 105-X12:1993
Colour fastness to water	⩾ 4	ISO 105-E01:1994

[a] Tolerance limit:
- up to 0,3 % non-wool fibres alowed for decorative purposes;
- up to 5 % non-wool fibres allowed for decorative purposes provided that such fibres are clearly distinguishable.

5 Marking

A label attached to each hand-knotted carpet shall bear the following information.

a) number and year of this International Standard ie. ISO 11859:1999;

b) identity of manufacturer or responsible supplier;

c) dimensions of carpet;

d) type and content of use-surface fibres;

e) pile height in millimetres;

f) number of knots per square metre;

g) mass of pile yarn per millimetre of pile height; in grams per square metre;

h) instructions for cleaning/maintenance.

Annex A
(normative)

Determination of number of knots per square metre

Unless otherwise agreed upon between the interested parties, the number of knots per square metre (n) shall be measured according to ISO 1763:1986. However, bearing in mind that laboratories with standard atmosphere may not be readily available in the area where hand-knotted carpets are produced, it is permissible to carry out measurements in conditions which are as near as possible to the standard, provided the alternative testing conditions are recorded in the test report.

Annex B
(normative)

Determination of theoretical pile density

B.1 General

To avoid destructive testing, theoretical pile density may be calculated from estimated linear density of pile yarn and number of tufts per unit area by the following procedure and this is believed to be sufficiently accurate for most circumstances.

B.2 Procedure

Remove a minimum of ten tufts from the sample carpet making sure that the least possible fibres are lost from the removed tufts. Condition the tufts in the standard atmosphere in accordance with ISO 139:1973 for 24 h. Determine the total mass of the tufts. Take one of the tufts and determine its length to the nearest millimetre without unduly stretching it using a tuft length block. Similarly determine the length of other tufts and calculate the total length of the tufts weighed.

Although standard tests on textiles are normally carried out in laboratories with the standard atmosphere (see ISO 139:1973), it is recognized that hand knotted carpets may be produced in areas where laboratories with standard atmosphere are not readily available. In case a laboratory with a standard atmosphere is not available, it is permisible to determine the mass of the tufts by weighing them in the bone-dry state and adding 13,6 % for moisture regain. If this method is used it shall be recorded in the test report.

NOTE Results of using this method will differ from those achieved by weighing in the standard conditioning atmosphere.

B.3 Calculation

Calculate the linear density of pile yarn as follows:

$$t = 1000 \times \frac{m \times 100}{l}$$

where

t is the linear density of pile yarn in tex;

m is the mass in grams;

l is the length in centimetres.

Determine the number of knots per square metre (n) in accordance with annex A.

Calculate the theoretical pile density as follows:

$$\text{Theoretical pile density} = \frac{n \times 2 \times t}{1\,000\,000}$$

Where n is the number of knots per square metre.