International Standard 1763

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Carpets — Determination of number of tufts and/or loops per unit length and per unit area

Moquettes — Détermination du nombre de touffes ou de boucles par unité de longueur et par unité de surface

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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 1763 was prepared by Technical Committee ISO/TC 38, *Textiles*.

This second edition cancels and replaces the first edition (ISO 1763-1973), to which has been added the clause entitled *Conditioning of test specimens*, and clause 8 of which has been technically revised.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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INTERNATIONAL STANDARD ISO 1763-1986 (E)

Carpets — Determination of number of tufts and/or loops per unit length and per unit area

1 Scope and field of application

This International Standard specifies a method for the determination of the number of tufts and/or loops per unit length and per unit area of a carpet, and is applicable to carpets the pile of which consists of uniformly spaced tufts and/or loops.

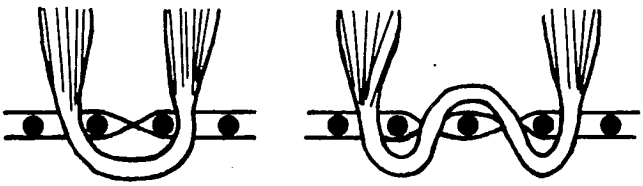
2 References

ISO 1957, *Machine-made textile floor coverings — Sampling and cutting specimens for physical tests.*

ISO 2424, *Textile floor coverings — Classification and terminology.*

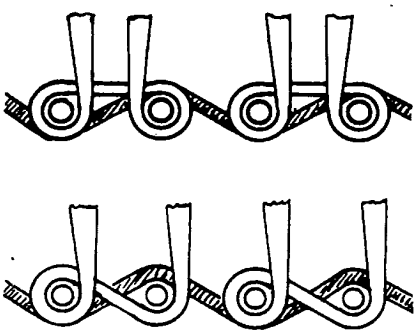
3 Definitions

3.1 tuft : A J-shaped, U-shaped or W-shaped length of yarn, or length of yarn in the form of a knot, of which the leg or legs form the pile of a carpet.



U tuft W tuft

Examples of tufts



Examples of knots

3.2 loop :The length of the pile-forming yarn between two succcessive lowest points of fixation in the backing of a carpet.

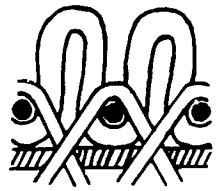


Diagram of two successive loops of a pile

3.3 number of tufts and/or loops and spaces per unit length : The number of tufts and/or loops and spaces occupying 100 mm when counted longitudinally, i.e., parallel to the selvedge (denoted by S), and when counted transversely, i.e., at right angles to the selvedge (denoted by G).

NOTE — The first two of these definitions are included in ISO 2424 and any amendments subsequently made in the definitions of ISO 2424 are to be regarded as also included in the present International Standard.

4 Principle

The number of complete tufts and/or loops and spaces is counted over a distance L which is at least 100 mm and contains at least 41 complete tufts and/or loops and spaces. The number of tufts and/or loops and spaces is counted in directions parallel to and at right angles to the selvedge, and the number per unit area calculated.

5 Apparatus

Rule, graduated in millimetres.

6 Conditioning of test specimens

Lay the specimens out flat, singly and with the use-surface uppermost in an atmosphere having a temperature of 20 ± 2 °C and a relative humidity of (65 ± 2) %, for at least 24 h. Measure the specimens in the same atmosphere.

7 Test specimens

Select four areas together representative of the sample[1], such that each edge contains at least 41 tufts and/or loops and spaces and is not less than 100 mm in length. Avoid selecting any area within 100 mm of any boundary of the sample.

8 Preparation of test specimens

Ensure that the specimens are marked clearly in the directions parallel to and at right angles to the selvedge.

9 Procedure

Take one specimen and count 41 tufts and/or loops and spaces and measure the distance occupied by them. If the distance is less than 100 mm, continue to count until the number of complete tufts and/or loops and spaces extends over at least 100 mm. Where two or more pile yarns lie side by side but are not twisted together, count them as one tuft. If the carpet is not of uniform construction, note the form of construction.

Repeat this measurement on each specimen in directions parallel to and at right angles to the selvedge.

10 Expression of results

10.1 Number per unit length

Calculate the number of tufts and/or loops S and spaces G per unit length in each direction, using the following equations :

$$S = 100 \frac{\Sigma N_s}{\Sigma L_s}$$

$$G = 100 \frac{\Sigma N_g}{\Sigma L_g}$$

where

N_s and N_g equal the number of tufts and/or loops and spaces in each specimen in directions parallel to and at right angles to the selvedges respectively;

L_s and L_g equal the actual lengths in millimetres measured in directions parallel to and at right angles to the selvedges respectively.

10.2 Number per unit area

If required, calculate the number of tufts and/or loops per 10 000 mm^2 by multiplying the values of S and G obtained as described in 10.1.

11 Test report

The test report shall include the following information :

a) that the test was conducted in accordance with this International Standard;

b) the values of S and G calculated as described in 10.1, to an accuracy of one decimal place;

c) if required, the number of tufts and/or loops per 10 000 mm^2, calculated as described in 10.2;

d) the type of tuft and the form of construction if it is not uniform.

1) For machine-made products, follow the procedure in ISO 1957.