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

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, International Standard ISO 1763 replaces ISO Recommendation R 1763-1971 drawn up by Technical Committee ISO/TC 38, *Textiles*.

The Member Bodies of the following countries approved the Recommendation :

Australia	Hungary	Portugal
Austria	India	Romania
Belgium	Iran	South Africa, Rep. of
Brazil	Israel	Spain
Canada	Italy	Sweden
Chile	Japan	Switzerland
Denmark	Netherlands	Turkey
Egypt, Arab Rep. of	New Zealand	United Kingdom
France	Norway	U.S.A.
Germany	Peru	U.S.S.R.
Greece	Poland	

No Member Body expressed disapproval of the Recommendation.

Printed in Switzerland

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

1 SCOPE AND FIELD OF APPLICATION

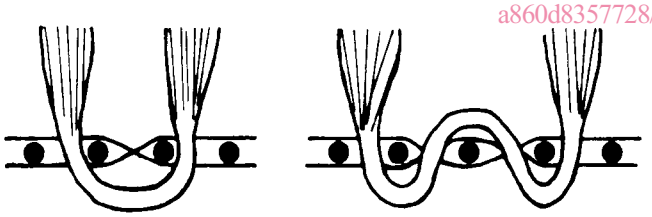
This International Standard specifies a method for the determination of the number of tufts and/or loops per unit length and per unit area of a carpet, and is applicable to carpets the pile of which consists of uniformly spaced tufts and/or loops.

2 REFERENCE

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

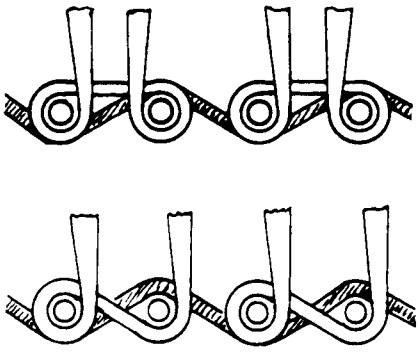
3 DEFINITIONS

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 successive lowest points of fixation in the backing of a carpet.

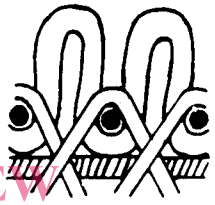


Diagram of two successive loops of a pile

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*).

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 40 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

An instrument capable of measuring to the nearest 0,5 mm, for example a rule graduated in millimetres.

6 TEST SPECIMENS

Select four areas together representative of the sample[1], such that each edge contains at least 40 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.

7 PREPARATION OF TEST SPECIMENS

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

8 PROCEDURE

Take one specimen and count 40 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.

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

9 CALCULATION AND EXPRESSION OF RESULTS

9.1 Number per unit length

Calculate the number of tufts and/or loops and spaces per unit length in each direction using the following formulae :

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

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

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.

9.2 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 9.1.

10 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 9.1, 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 9.2.

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

For hand-made carpets, see the document prepared by ISO/TC 38/SC 12/WG 3 on test locations.