



TECHNICAL REPORT 3836

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Shoe sizes — System of width grading (for use in the Mondopoint system)

Pointures des chaussures — Système de gradation des largeurs (pour emploi dans le système Mondopoint)

Technical Report 3836 was drawn up by Technical Committee ISO/TC 137, *Sizing system, designation and marking for boots and shoes*, and approved by the majority of its members. The reasons which led to the decision to publish the document in the form of a Technical Report are given in the Introduction.

In March 1975, the first edition was submitted to the ISO Council, which approved its publication as a Technical Report.

This second edition, incorporating a revised sub-clause 4.3 and the new sub-clauses 4.4 to 4.6, was approved by the ISO Council in January 1978.

0 INTRODUCTION

As part of its programme of work, Technical Committee ISO/TC 137 has established a new system for sizing and designating boots and shoes with a view to unifying internationally the method of expressing shoe sizes.

This new system, called the "Mondopoint system", makes reference to the human foot and uses a unit of measurement from the International System of units : the millimetre.

The two fundamental characteristics upon which it is based are : the length and the width of the foot, as defined in ISO 2816.

In tackling the problem of fixing the appropriate range of sizes relating to these two measurements, for the needs both of the consumer and of shoe manufacturers, Technical Committee ISO/TC 137 has established those concerning length intervals only, lengths representing multiples of 5 mm or 7,5 mm being used (ISO 3355).

On the other hand, after having studied the possibility of defining width grading in a similar way, it has come to the conclusion that this is not possible at present on the international level, having regard to the following facts :

- the statistical distribution of the dimensions of the feet to be fitted differs from one country to another according to the variety of the populations;
- this variety is probably the reason for the diversity of grading systems in different countries.

Consequently, as it has been impossible in the present circumstances to succeed in drawing up an International Standard, the Committee felt it opportune to draw up this Technical Report.

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1 SCOPE

This Technical Report states the fundamental conditions which must be taken into account in any future standardization of a system of width grading for boots and shoes, for use in the Mondopoint system.

2 FIELD OF APPLICATION

The shoe widths in question are applicable to all boots and shoes, without exception.

3 REFERENCES

ISO 2816, *Fundamental characteristics of a system of shoe sizing to be known as Mondopoint*.

ISO 3355, *Shoe sizes — System of length grading (for use in the Mondopoint system)*.

4 FUNDAMENTAL CONDITIONS

The establishment of an international system of width grading depends on the successful fulfilment of the following conditions :

4.1 The indication of the width must be given as a whole number of millimetres, as specified in ISO 2816.¹⁾

4.2 Each member body of ISO will have to draw up, if possible, standard width grading tables corresponding to the different categories of its national population (men, women, children). Since two series of progressions in length have been fixed (intervals of 5 mm and 7,5 mm), each must be associated with its own series of progressions in width.

4.3 This series of progressions in width must be established as follows :

4.3.1 Adoption of well-defined intervals :

- between two consecutive widths for the same length (width interval);
- between two consecutive lengths for the same series of widths (grade).

4.3.2 Definition of a central value for each width.

4.4 The adopted width interval should have a value representing a multiple of 1 mm.

4.5 Manufacturers should be left free to select which widths they wish to use because the major axes of population ellipses for foot length and width distributions seem to vary for each country.

4.6 The various national standards (even at the stage of draft), as referred to in 4.2, will have to be submitted to ISO/TC 137, which will attempt to arrive at an international standard width grading table.

General observation

Studies relating to the establishment of a range of widths for different types of shoes should not delay putting the Mondopoint system into application in each country.

1) This provision does not preclude the use of codes as an additional means of expressing width. Such codes may form the subject of further International Standards.