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ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 1822

**METHOD OF TEST FOR WOOL FIBRE LENGTH
USING A SINGLE-FIBRE LENGTH-MEASURING MACHINE**

1st EDITION

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BRIEF HISTORY

The ISO Recommendation R 1822, *Method of test for wool fibre length using a single-fibre length-measuring machine*, was drawn up by Technical Committee ISO/TC 38, *Textiles*, the Secretariat of which is held by the British Standards Institution (BSI).

Work on this question led to the adoption of Draft ISO Recommendation No. 1822, which was circulated to all the ISO Member Bodies for enquiry in March 1969. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Belgium	India	South Africa, Rep. of
Canada	Israel	Spain
Colombia	Italy	Sweden
Czechoslovakia	Netherlands	Switzerland
Denmark	New Zealand	Turkey
France	Norway	U.A.R.
Germany	Peru	United Kingdom
Greece	Poland	U.S.S.R.
Hungary	Portugal	

The following Member Body opposed the approval of the Draft :

U.S.A.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as an ISO RECOMMENDATION.

METHOD OF TEST FOR WOOL FIBRE LENGTH USING A SINGLE-FIBRE LENGTH-MEASURING MACHINE

1. SCOPE

This ISO Recommendation describes a method for the determination of wool fibre length using a machine which semi-automatically measures the length of individual fibres.*

This method is applicable to wool in any form and to man-made fibres processed on the woollen and worsted systems, and also to blends of these fibres.

2. PRINCIPLE

A numerical sample of the fibres is taken. The length of each fibre is measured under controlled tension on a machine, and the frequency distribution of fibre lengths is then obtained.

3. APPARATUS

- 3.1 *A machine* that semi-automatically measures fibre length under controlled tension**, classifies the fibre lengths in 5 mm groups and registers the number of fibres in each of these groups. A suitable machine is described in the Appendix.

The machine used should be capable of providing results within the confidence limits specified for the number of fibres given in clause 5.3.

- 3.2 *Two pairs of pointed forceps* with ground ends.

- 3.3 *Short scale* with two white marks spaced 5 mm apart for classifying very short fibres.

- 3.4 *Apparatus for the preparation of specimens :*

Clip with flat jaws, about 150 mm wide, one edge of which is ground so that it is parallel to the second edge which is bent and bears a thin strip of leather in such a way that single wool fibres may be held firmly at all points along the clip edge.

* This method is primarily intended for use in quality control testing. When more precise measurement is required, the less rapid method given in ISO Recommendation R 270 *Determination of fibre length by measuring the length of individual fibres*, should be used.

** The tension may conveniently be applied by a small presser foot (area approximately 3 mm²) applied to the fibre so as to exert a normal force of 1.5 gf (1.5 cN) and controlling the amount by friction. The material and surface finish of the presser foot should be highly polished. This arrangement gives a small increase of tension with increasing fibre diameter : it is just sufficient to remove crimp from wool fibres in the practical diameter range of 20 to 40 µm. The accuracy of length measurements should be to the nearest millimetre.