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# International Standard



# 3343

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

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## Textile glass — Yarns — Determination of twist balance index

*Verre textile — Fils — Détermination de l'indice d'équilibre en torsion*

Second edition — 1984-03-01

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UDC 666.189.2 : 620.175

Ref. No. ISO 3343-1984 (E)

Descriptors : textile glass, glass cloth, textile glass yarn, tests, measurement, twist balance index.

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (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 authorized 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.

International Standard ISO 3343 was developed by Technical Committee ISO/TC 61, *Plastics*.

This second edition was submitted directly to the ISO Council, in accordance with clause 6.11.2 of part 1 of the Directives for the technical work of ISO. It cancels and replaces the first edition (i.e. ISO 3343-1975), which had been approved by the member bodies of the following countries :

Belgium	Iran	Romania
Brazil	Ireland	South Africa, Rep. of
Bulgaria	Israel	Spain
Canada	Italy	Sweden
Egypt, Arab Rep. of	Japan	Switzerland
France	Mexico	Thailand
Germany, F.R.	Netherlands	Turkey
Hungary	New Zealand	United Kingdom
India	Poland	USA

The member body of the following country had expressed disapproval of the document on technical grounds :

Czechoslovakia

# Textile glass — Yarns — Determination of twist balance index

## 1 Scope and field of application

This International Standard specifies a method for determining the twist balance index of folded and cabled textile glass yarns.

## 2 Reference

ISO 1886, *Textile glass — Method of sampling applicable to batches.*

## 3 Principle

Counting of the number of turns a yarn makes on itself when it is arranged in an open loop of specified length and width.

## 4 Sampling

Sampling shall be carried out in accordance with ISO 1886.

## 5 Procedure

**5.1** Unwind tangentially the first 50 m of yarn from the package in order to obtain a representative test specimen from this package. Pinch the yarn between thumb and forefinger; do not cut the yarn.

**5.2** Further unwind tangentially an additional 1 m of yarn, which constitutes the test specimen. As described in 5.1, pinch the yarn without cutting it. Let the yarn hang to form an open loop, with the two ends of the specimen held 100 mm apart.

**5.3** Note the number of turns,  $N_i$ , the yarn makes on itself, and the direction in which the loop twists (S or Z). The counting may be done while untwisting the yarn.

**5.4** Repeat the operation described in 5.2 five times, with the specimens immediately succeeding each other and taking care to take again the yarn near the spool in order to avoid any loss of twist. Note the result as described in 5.3.

## 6 Expression of results

The twist balance index  $E_i$  of the yarn is represented by the number of turns  $N_i$  the yarn makes on itself :

$$E_i = N_i$$

The average twist balance index of the package is the arithmetic mean of all test results taken from this package and the average twist balance index of the sample is represented by the arithmetic mean of the mean values of all packages tested.

Mean indices shall be given in figures rounded off to the first decimal place.

## 7 Test report

The test report shall include the following information :

- a) a reference to this International Standard;
- b) a complete identification of the sample tested;
- c) the mode of unwinding;
- d) the direction of the twist of the loop (S or Z);
- e) the twist balance index of each package, and of the sample;
- f) details of procedure not provided for in this International Standard and which might have had an influence upon the results.