INTERNATIONAL STANDARD ISO 3343

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Textile glass — Determination of twist balance index of yarns

Verre textile — Détermination de l'indice d'équilibre en torsion des fils

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FOREWORD

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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 drawn up by Technical Committee ISO/TC 61, *Plastics,* and circulated to the Member Bodies in January 1974.

It has 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	Netherlands	Turkey
Hungary	New Zealand	United Kingdom
India	Poland	U.S.A.

The Member Body of the following country expressed disapproval of the document on technical grounds :

Czechoslovakia

Printed in Switzerland

Textile glass — Determination of twist balance index of yarns

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 products — Continuous filament yarns, staple fibre yarns and rovings in the form of packages — Sampling of batches or consignments.*

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[1] 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 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).

5.4 Repeat the operation described in 5.2 five times, with the specimens immediately succeeding each other (i.e without intermediate unwinding of yarn). 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 particulars :

a) a reference to this International Standard;

b) a complete reference to the product 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.

1) The yarn shall be unwound either over end or tangentially according to the way it would be unwound in use. The same mode of unwinding shall be used throughout the whole test.