

BS EN ISO 2061:2010



BSI Standards Publication

Textiles — Determination of twist in yarns — Direct counting method (ISO 2061:2010)

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National foreword

This British Standard is the UK implementation of EN ISO 2061:2010. It supersedes BS EN ISO 2061:1996 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee TCI/24, Physical testing of textiles.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments issued since publication

Date	Text affected
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English Version

Textiles - Determination of twist in yarns - Direct counting
method (ISO 2061:2010)

Textiles - Détermination de la torsion des fils - Méthode par
comptage direct (ISO 2061:2010)

Textilien - Bestimmung der Drehung von Garnen - Direktes
Zählverfahren (ISO 2061:2010)

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Foreword

This document (EN ISO 2061:2010) has been prepared by Technical Committee ISO/TC 38 "Textiles" in collaboration with Technical Committee CEN/TC 248 "Textiles and textile products" the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2011, and conflicting national standards shall be withdrawn at the latest by February 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 2061:1995.

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Endorsement notice

The text of ISO 2061:2010 has been approved by CEN as a EN ISO 2061:2010 without any modification.

Textiles — Determination of twist in yarns — Direct counting method

1 Scope

1.1 This International Standard specifies a method for the determination of the direction of twist in yarns, the amount of twist, in terms of turns per unit length, and the change in length on untwisting, by the direct counting method.

1.2 This International Standard is applicable to

- a) single yarns (spun and filament),
- b) plied yarns, and
- c) cabled yarns.

Separate procedures are given for each type of yarn. The method is designed primarily for yarns in packages, but, with special precautions, the procedures can be used for yarns taken from fabrics. It is not suitable for the determination of twist in a monofilament.

NOTE See also ISO 1890^[1], which was prepared especially for the needs of glass textile technology, and ISO 7211-4^[2].

1.3 This International Standard covers the determination of twist in plied and cabled yarns as follows:

- a) in plied yarns: the final twist of the plied yarns and the original twist of the single yarn before plying;
- b) in cabled yarns:
 - the final cabling twist of the yarn;
 - the original twist of the plied yarn after plying, but prior to the last stage of processing;
 - the twist of the single yarn before plying.

1.4 If desired, the twist of single and plied yarn components as they lie in the final structure can be determined by the special procedure given in 10.5.7.

1.5 This International Standard is not applicable, except by agreement, to yarns which stretch more than 0,5 % when the tension increases from 0,5 cN to 1,0 cN per unit linear density of the yarn expressed in tex. Such yarns can be tested under special conditions of tension which are accepted by all parties interested in the test results.

1.6 This International Standard is not suitable for products of open-end spinning and intermingled (interlaced) multifilament yarns.

1.7 This International Standard is not applicable to yarns which are too large to permit their being placed in the clamps of the testing apparatus without crushing or distortion severe enough to affect the test results.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2, *Textiles — Designation of the direction of twist in yarns and related products*

ISO 139, *Textiles — Standard atmospheres for conditioning and testing*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

twist

number of turns about the axis of a yarn based on its nominal gauge length before untwisting

NOTE Twist should preferably be expressed as turns per metre (turns/m), but it may be expressed as turns per centimetre (turns/cm).

3.2

gauge length

distance between two effective clamping points of the test specimen mounted in the testing equipment

3.3

initial length

length of a test specimen under a specified pretension at the beginning of a test

3.4

change in length on untwisting

increase or decrease in initial length observed when the specimen is untwisted, expressed as the percentage extension, or contraction, based on the specimen initial length

3.5

moisture equilibrium for testing

that state reached when the rate of increase in mass of a sample or specimen in a specified (test) atmosphere does not exceed that prescribed for the material being tested

NOTE 1 See ISO 139.

NOTE 2 A textile material is in moisture equilibrium with the ambient atmosphere when it does not exchange water with this atmosphere; its mass then remains constant as long as the experiment is carried out in an unchanged atmosphere. For test purposes, moisture equilibrium is reached by absorption, starting from a relatively low moisture content.

3.6

yarn package

length or lengths of yarn in a form suitable for use, handling, storing or shipping

NOTE Packages may be comprised of unsupported yarn, such as balls, or supported yarn, such as skeins, cakes, bobbins, cops, cones, pirns, spools, tubes or beams.

3.7

twist factor

measure of the spiralling orientation of the fibres in a spun yarn or of the filaments in a filament yarn

NOTE The twist factor is related to the angle which fibres on the surface of the yarn make with the axis of the yarn, and is a measure of the hardness of the resulting yarn due to twist.