

SRI LANKA STANDARD 1358 : 2008
ISO 8159 : 1987

**VOCABULARY FOR MORPHOLOGY OF
TEXTILE FIBRES AND YARNS**

SRI LANKA STANDARDS INSTITUTION

Sri Lanka Standard
VOCABULARY FOR MORPHOLOGY OF TEXTILE
FIBRES AND YARNS

SLS 1358 : 2008
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Sri Lanka Standard
VOCABULARY FOR MORPHOLOGY OF TEXTILE
FIBRES AND YARNS

NATIONAL FOREWORD

This standard was approved by the Sectoral Committee on Textiles, Clothing and Leather and was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 2008-12-19.

This Sri Lanka Standard is identical with ISO 8159 :1987 Textiles – Morphology of fibres and yarns vocabulary published by International Organization for Standardization (ISO)

TERMINOLOGY AND CONVENTIONS

The text of the International Standard has been accepted as suitable for publication without deviation, as a Sri Lanka Standard. However certain terminology and conventions are not identical with those used in Sri Lanka Standards, attention is therefore drawn to the following :

- a) Wherever the words “International Standard/Publication” appear referring to this standard they should be interpreted as “ Sri Lanka Standard ”.
- b) The comma has been used throughout as a decimal marker. In Sri Lanka Standards it is the current practice to use a full point on the baseline as the decimal marker.
- c) Whenever page numbers are quoted, they are ISO page numbers.

INTERNATIONAL STANDARD NORME INTERNATIONALE

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

**Textiles — Morphology of fibres and yarns —
Vocabulary**

**Textiles — Morphologie des fibres et fils —
Vocabulaire**

Reference number
Numéro de référence
ISO 8159 : 1987 (E/F)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8159 was prepared by Technical Committee ISO/TC 38, *Textiles*.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Avant-propos

L'ISO (Organisation internationale de normalisation) est une fédération mondiale d'organismes nationaux de normalisation (comités membres de l'ISO). L'élaboration des Normes internationales est normalement confiée aux comités techniques de l'ISO. Chaque comité membre intéressé par une étude a le droit de faire partie du comité technique créé à cet effet. Les organisations internationales, gouvernementales et non gouvernementales, en liaison avec l'ISO participent également aux travaux.

Les projets de Normes internationales adoptés par les comités techniques sont soumis aux comités membres pour approbation, avant leur acceptation comme Normes internationales par le Conseil de l'ISO. Les Normes internationales sont approuvées conformément aux procédures de l'ISO qui requièrent l'approbation de 75 % au moins des comités membres votants.

La Norme internationale ISO 8159 a été élaborée par le comité technique ISO/TC 38, *Textiles*.

L'attention des utilisateurs est attirée sur le fait que toutes les Normes internationales sont de temps en temps soumises à révision et que toute référence faite à une autre Norme internationale dans le présent document implique qu'il s'agit, sauf indication contraire, de la dernière édition.

Textiles — Morphology of fibres and yarns — Vocabulary

1 Scope and field of application

This International Standard defines the principal terms used to describe the various forms into which textile fibres can be assembled, up to and including cabled yarns.

It contains only terms of general application; terms and/or definitions which are specific to particular fibres (such as hemp, silk, textile glass, metal fibre, carbon fibre, etc.) are excluded.

A diagram is included which illustrates the relationship between various terms from a production point of view.

This International Standard does not include terms which describe the manufacturing or processing methods, or terms used to quantify fibre and yarn properties.

2 Reference

ISO 8160, *Textiles — Textured filament yarns — Vocabulary*.

3 Terms and definitions

These definitions are listed in an order which follows, in general, the textile processing sequence.

3.1 textile fibre: A substance characterized by its flexibility, fineness and high ratio of length to cross-section, suitable for textile applications.

3.2 staple fibre: A textile fibre of limited length.

3.3 filament: A textile fibre of very great length considered as continuous.

3.4 textile film: A textile substance in film form in which the molecular orientation is essentially in the longitudinal direction.

Textiles — Morphologie des fibres et fils — Vocabulaire

1 Objet et domaine d'application

La présente Norme internationale définit les principaux termes utilisés pour la description des différentes formes sous lesquelles les fibres textiles peuvent être présentées (les fils câblés y compris).

Elle ne comprend que les termes à caractère général. Les termes et/ou définitions spécifiques de fibres particulières (telles que celles de chanvre, soie, verre textile, métal, carbone, etc.) sont exclus.

Il est donné un schéma illustrant les relations entre les divers termes du point de vue de la production.

La présente Norme internationale n'inclut pas les termes qui décrivent les méthodes de fabrication ou les procédés ainsi que les termes utilisés pour quantifier les propriétés des fibres et des fils.

2 Référence

ISO 8160, *Textiles — Fils continus texturés — Vocabulaire*.

3 Termes et définitions

Ces définitions sont données dans un ordre suivant, en général, les principales étapes de la mise en œuvre.

3.1 fibre textile: Élément caractérisé par sa flexibilité, sa finesse et le rapport élevé de sa longueur à sa section, apte à des applications textiles.

3.2 fibre discontinue: Fibre textile de longueur limitée.

3.3 filament: Fibre textile de très grande longueur, considérée comme «continue».

3.4 film textile: Élément textile en forme de film avec orientation moléculaire principalement longitudinale.

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3.5 tape yarn¹⁾: A flat filament yarn the elements of which have a high ratio of width to thickness having been slit from a textile film or extruded in tape form.

3.6 fibrillated tape yarn¹⁾: A tape yarn split in the length direction with transverse connections between the fibrils.²⁾

3.7 tow (for man-made staple fibres): A large number of filaments assembled without substantial twist usually intended to be cut and/or stretch-broken for use in staple fibre or top form.

3.8 staple in bulk: A disordered mass of staple fibres.

3.9 card web: A thin disordered layer of fibres held together by frictional forces.

3.10 sliver or top³⁾: An indefinitely long assembly of staple fibres, substantially parallel and without twist, and capable of being drafted.

3.11 roving: An indefinitely long assembly of staple fibres, substantially parallel with slight twist, but capable of being drafted.

3.12 flock: Very short fibres destined to be stuck to a backing.

3.13 yarn: A textile product of substantial length and relatively small cross-section of fibres and/or filaments with or without twist.

NOTE — A general term covering all the specific types of yarns.

3.14 spun yarn¹⁾: A yarn made of staple fibres usually bound together by twist.

3.15 bulked spun yarn¹⁾: A spun yarn in which additional bulkiness has been developed by means of chemical and/or thermal treatment.

3.16 filament yarn¹⁾: A yarn composed of one filament (monofilament) or more filaments (multifilament) with or without twist.

3.17 singles yarn¹⁾: A yarn having no twist, or a yarn in which the twist has been inserted in a single operation.

3.18 multiple wound yarn¹⁾: A yarn formed from two or more yarns wound together without twist.

3.5 lame textile¹⁾: Élément textile plat, du type filament, de rapport élevé entre largeur et épaisseur, obtenu par coupe à partir d'un film textile, ou bien extrudé en forme de lame.

3.6 lame fibrillée¹⁾: Lame textile fissurée dans le sens longitudinal avec création de fibrilles reliées transversalement.²⁾

3.7 câble (pour fibres discontinues chimiques): Assemblage sans torsion notable d'un grand nombre de filaments, généralement destiné à être sectionné et/ou craqué pour l'utilisation sous forme de fibres discontinues ou de rubans.

3.8 bourre: Ensemble de fibres discontinues présentées sans ordre apparent.

3.9 nappe cardée: Fine couche de fibres disposées sans ordre apparent, et dont la cohésion résulte de forces de friction.

3.10 ruban³⁾: Ensemble étirable de grande longueur, sans torsion notable, de fibres discontinues sensiblement parallèles.

3.11 mèche: Ensemble étirable de grande longueur de fibres discontinues sensiblement parallèles maintenues par une légère torsion.

3.12 floc: Fibres de très courte longueur destinées à être collées sur un support.

3.13 fil: Produit textile de grande longueur et de section transversale relativement petite de fibres ou de filaments avec ou sans torsion.

NOTE — Terme général englobant tous les types particuliers de fils.

3.14 filé¹⁾: Fil constitué de fibres discontinues dont la cohésion est généralement obtenue par torsion.

3.15 filé gonflant¹⁾: Filé qui, à la suite d'un traitement chimique et/ou thermique, a un volume remarquablement supérieur à celui du même filé non traité.

3.16 fil continu¹⁾: Fil constitué d'un filament (monofilament) ou de plusieurs filaments (multifilaments) avec ou sans torsion.

3.17 fil simple¹⁾: Fil sans torsion, ou fil auquel la torsion est donnée en une seule opération.

3.18 fil assemblé¹⁾: Fil formé de la réunion sans torsion de deux ou plusieurs fils.

1) Specific types of the general term "yarn".

2) The "fibrils" are here film sections having linear densities of the same order as textile fibres.

3) The English translation of "ruban de laine" is "wool top" and not "roving or sliver".

1) Types particuliers de terme général «fil».

2) Les fibrilles sont dans ce cas des éléments dont la finesse est du même ordre que celle des fibres textiles.

3) La traduction en anglais de «ruban de laine» est «wool top» et non «roving or sliver».

3.19 folded yarn¹⁾ (plied yarn): A yarn in which two or more singles yarns (plies), are twisted together in a single operation.

3.20 cabled yarn¹⁾: A yarn in which two or more yarns, at least one of which is a folded yarn, are twisted together in one or more operations.

3.21 textured filament yarn¹⁾: Multi- or monofilament yarn characterized by twist and/or crimp by which it has, or can develop by after-treatment, stretch and/or bulk-properties.

3.19 fil retors¹⁾: Fil formé de deux ou plusieurs fils simples (bouts) réunis par une seule opération de torsion.

3.20 fil câblé¹⁾: Fil formé de deux ou plusieurs fils dont l'un au moins est un fil retors, réunis par une ou plusieurs opérations de torsion.

3.21 fil continu texturé¹⁾: Fil continu (multifilament ou monofilament) ayant des caractéristiques de torsion et/ou de frisure existantes ou révélables par traitement ultérieur, grâce auxquelles il acquiert une extensibilité élastique et/ou une voluminosité accrue.

4 Morphological scheme

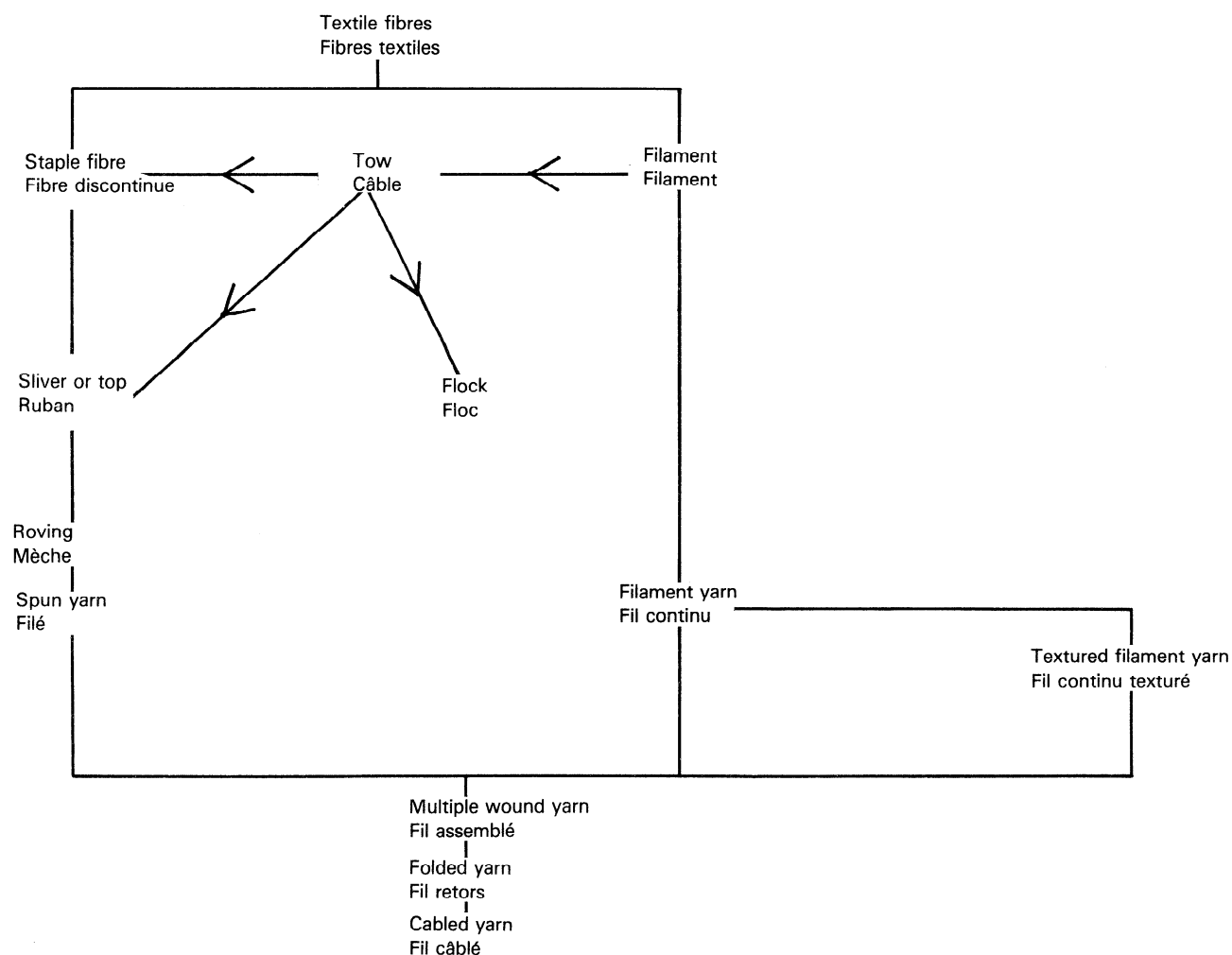
A morphological scheme is given below. Not all of the terms defined in clause 3 are contained in the diagram, nor are all possible production routes represented.

NOTE — Definitions of textured filament yarns are given in ISO 8160.

4 Schéma morphologique

Un schéma morphologique est donné ci-après. Tous les termes définis dans le chapitre 3 ne figurent pas sur le schéma suivant et toutes les séquences possibles de production ne sont pas représentées.

NOTE — Les définitions des fils continus texturés figurent dans l'ISO 8160.



1) Specific types of the general term "yarn".

1) Types particuliers de terme général «fil».

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SRI LANKA STANDARDS INSTITUTION

The Sri Lanka Standards Institution (SLSI) is the National Standards Organization of Sri Lanka established under the Sri Lanka Standards Institution Act No. 6 of 1984 which repealed and replaced the Bureau of Ceylon Standards Act No. 38 of 1964. The Institution functions under the Ministry of Science & Technology.

The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

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In the International field the Institution represents Sri Lanka in the International Organization for Standardization (ISO), and participates in such fields of standardization as are of special interest to Sri Lanka.