



SLOVENSKI STANDARD
SIST EN 13003-1:2000
01-maj-2000

Para-aramidni vlaknasti prepletani preli - del 1: Označitev

Para-aramid fibre filament yarns - Part 1: Designation

Para-Aramidfaser-Filamentgarne - Teil 1: Bezeichnung

Fils en fibres de para-aramide - Partie 1: Désignation

Ta slovenski standard je istoveten z: EN 13003-1:1999

[SIST EN 13003-1:2000](https://standards.iteh.ai/catalog/standards/sist/9267daed-3e92-4869-b604-b8a903e2abe0/sist-en-13003-1-2000)

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ICS:

59.100.30 Aramidni materiali Aramide materials

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13003-1

April 1999

ICS 59.100.30

English version

Para-aramid fibre filament yarns - Part 1: Designation

Fils en fibres de para-aramide - Partie 1: Désignation

Para-Aramidfaser-Filamentgarne - Teil 1: Bezeichnung

This European Standard was approved by CEN on 4 March 1999.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by IBN.

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of an identical text or by endorsement, at the latest by October 1999, and conflicting national standards shall be withdrawn at the latest by October 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

EN 13003 consists of the following parts, under the general title "*Para-aramid fibre filament yarns*" :

- *Part 1 : Designation*
- *Part 2 : Methods of test and general specifications*
- *Part 3 : Technical specifications*

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1 Scope

1.1 The European Standard establishes a method of designation for para-aramid fibre filament yarns which may be used as the basis for specifications.

1.2 This designations system is for para-aramid fibre filament yarns used for the reinforcement of polymer composites to reinforce in mechanical properties. It does not apply to discontinuous fibres and para-aramid fibre products made in the form of staple yarns, woven fabrics, braids, knits, mats, etc..

1.3 It is not intended to imply that the fibres having the same designation give the same performances. This EN 13303-1 does not provide engineering data, performance data or data on processing conditions which may be required to specify a fibre for a particular application and/or method of processing.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 13003-3:1999, *Para-aramid fibre filament yarns – Technical specifications.*

3 Designation system

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The designation for para-aramid fibre filament yarns is based on the following standardized pattern :

Designation https://standards.iteh.ai/catalog/standards/sist/9267daed-3e92-4869-b604-b84677777777/en-13003-1-2000			
Identity block			
European standard number block	Individual item block		
	Data block 1	Data block 2	Data block 3

The designation consists of an identity block comprising the european standard number and an individual item block. For unambiguous coding the individual item block is subdivided into data blocks comprising the following information :

- Data block N°1 Identification of para-aramid fibre filament yarns ;
- Data block N°2 Designatory properties ;
- Data block N°3 Manufacturers code.

To ensure legibility :

- the description bloc shall be separated from the standard number block by a comma ;
- space shall be inserted between blocks ;
- the first character is the first individual item block shall be a dash ;
- individual item blocks shall be separated from each other by a comma ;

- if a data block is not used, this shall be indicated by two inverted commas ("").

3.1 Data block 1

In this data para-aramid fibre filament yarns are identified by the letter A, followed by the letter C signifying continuous filament yarns.

3.2 Data block 2

In this data block the designatory properties are defined as follows :

Position 1 : The para-aramid fibre filament yarns are classified according to their type of tensile modulus in the following way :

Designation	Type of para-aramid fibre filament yarn	Typical level of tensile modulus (GPa)
HM	High modulus type	120
TM	Tailor-made modulus type *)	60

*) Tailor-made modulus type includes all those yarns that are produced under the designation "Low modulus type" and "Intermediate modulus type".

Position 2 : Tensile modulus of elasticity represented by a typical value or mean value by a number of three figures which corresponds to the tensile modulus of elasticity in GPa. The number shall be rounded to 0 or 5 in the first place.

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For example :

Number	Typical level of tensile modulus of elasticity (GPa)
80	80
100	98
115	117
120	120

Position 3 : Tensile strength represented by a typical value or mean value by a number of two figures which corresponds to the thousands and hundreds digits of the tensile strength in MPa. Possible tens digits of the tensile strength shall be rounded off first.

For example :

Number	Tensile strength
26	2 600 MPa
28	2 840 MPa
32	3 150 MPa

Position 4 : Linear density represented by the first three figures of the linear density in dtex which is given in Table 1 of prEN 13003-3:1998. This value represents the class of linear density.

For example :

Number	Linear density class
124	1 240 dtex
797	7 970 dtex

3.3 Data block 3

In this data block the manufacturers code is given. If desired, the designation may be completed with the manufacturers code permitting the incorporation of any complementary information that does not appear among the previous elements as pointed out below :

- number of single filaments per yarn ;
- diameter of single filament ;
- twist number and direction ;
- finish content of the yarn and designation of finish.

4 Example

An example is given as follows :

For a para-aramid fibre filament yarn :

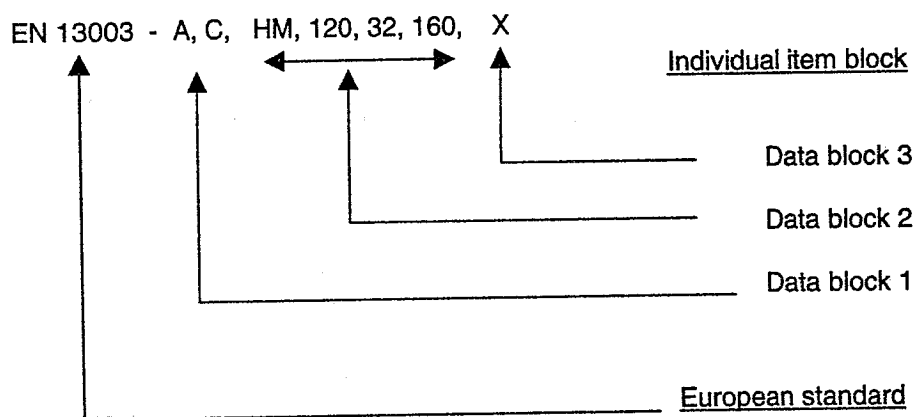
- continuous filament yarn ;
- high modulus type ;
- tensile modulus of elasticity 121 GPa ;
- tensile strength of 3 150 MPa ;
- linear density of 1 600 dtex ;
- manufacturer X.

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The designation is :



5 Bibliography

EN 13003-2, *Para-aramid fibre filament yarns - Methods of test and general specifications.*

prEN 12562, *Textiles - Para-aramid multifilament yarns - Methods of test.*

EN ISO 1889, *Reinforcement yarns - Determination of the linear density (ISO 1889:1997).*

EN ISO 1890, *Reinforcement yarns - Determination of twist (ISO 1890:1997).*