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Textiles - Industrial sewing threads made wholly or partly from synthetic fibres

Textilien - Vollständig oder teilweise aus Chemiefasern hergestellte Industrienähgarne

Textiles - Fils à coudre industriels composés uniquement ou partiellement de fibres synthétiques

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Ta slovenski standard je istoveten z: EN 12590:1999

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ICS:

59.080.20 Preje Yarns

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12590

October 1999

ICS 59.080.20

English version

Textiles - Industrial sewing threads made wholly or partly from synthetic fibres

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This European Standard was approved by CEN on 5 September 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.

[SIST EN 12590:2000](https://standards.iteh.ai/catalog/standards/sist/60ea0f99-a159-47e6-8e73-fd2960f03c48/sist-en-12590-2000)

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Contents

	Page
Foreword	2
1 Scope	3
2 Normative references	4
3 Terms and definitions	5
4 Requirements	5
5 Statement of conformity	6
Table 1 - Breaking force requirements for continuous filament polyester threads	7
Table 2 - Breaking force requirements for staple fibre polyester threads	8
Table 3 - Breaking force requirements for air jet textured polyester threads	9
Table 4 - Breaking force requirements for false twist textured polyester threads	10
Table 5 - Breaking force requirements for polyester/cotton corespun threads	11
Table 6 - Breaking force requirements for polyester/polyester corespun threads	12
Table 7 - Breaking force requirements for continuous filament polyamide 6.6 threads	13
Table 8 - Breaking force requirements for false twist textured polyamide 6.6 threads	14
Table 9 - Breaking force requirements for continuous filament para-aramid threads	14
Table 10 - Breaking force requirements for staple fibre para-aramid threads	15
Table 11 - Breaking force requirements for continuous filament meta-aramid threads	15
Table 12 - Breaking force requirements for staple fibre meta-aramid threads	16
Table 13 - Breaking force requirements for continuous filament polyester braids	16
Table 14 - Breaking force requirements for staple fibre polyester braids	17
Table 15 - Breaking force requirements for continuous filament polyamide 6.6 braids	17
Table 16 - Minimum colour fastness requirements for general purpose threads, excluding aramids for use in the garment industry	18
Annex A (informative) Ticket numbers	19
Annex B (normative) Determination of variation in length after immersion in boiling water	20

Foreword

This European Standard has been prepared by 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 April 2000, and conflicting national standards shall be withdrawn at the latest by April 2000.

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.



1 Scope

This European Standard specifies requirements for industrial sewing threads made wholly or partly from synthetic fibres. It specifies requirements for industrial sewing threads based on breaking force in relation to the thread size. For threads which are for use in the garment trade it also specifies colour fastness and boiling water shrinkage requirements.

It deals with industrial sewing threads made from the following substrates and combinations of substrates:

- a) Continuous filament polyester;
- b) Staple fibre polyester;
- c) Air-Jet textured polyester(see 3.3);
- d) False twist textured polyester(see 3.4);
- e) Polyester and cotton corespun, continuous filament polyester core, cotton sheath (see 3.5);
- f) Polyester and polyester corespun, continuous filament polyester core, staple spun polyester sheath (see 3.5);
- g) Continuous filament polyamide 6.6;
- h) False twist textured polyamide 6.6;
- i) Continuous filament and staple fibre aramid;
- j) Continuous filament polyester, staple fibre polyester and continuous filament polyamide 6.6 braids for hand/machine stitching.

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 ISO 105-C06	Textiles - Tests for colour fastness - Part C06 : Colour fastness to domestic and commercial laundering (ISO 105-C06 : 1994)
EN ISO 105-D01	Textiles - Tests for colour fastness - Part D01 : Colour fastness to dry cleaning (ISO 105-D01:1993)
EN ISO 105-E01	Textiles - Tests for colour fastness - Part E01 : Colour fastness to water (ISO 105-E01 : 1994)
EN ISO 105-X12	Textiles - Tests for colour fastness - Part X12 : Colour fastness to rubbing (ISO 105-X12 : 1993)
EN ISO 2060	Textiles - Yarns from packages - Determination of linear density (mass per unit length) by the skein method (ISO 2060 : 1994)
EN ISO 2062	Textiles - Yarns from packages - Determination of single-end breaking force and elongation at break (ISO 2062 : 1993)
EN 20105-B02	Textiles - Tests for colour fastness - Part B02: Colour fastness to artificial light (Xenon arc fading lamp test) (ISO 105-B02 : 1988)
EN 20139	Textiles - Standard atmospheres for conditioning and testing (ISO 139 : 1973)
ISO 105-F	Textiles - Tests for colour fastness - Part F : Standard adjacent fabrics
ISO 105-F10	Textiles - Tests for colour fastness - Part F 10: specification for adjacent fabric: Multifibre

3 Terms and definitions

For the purpose of this standard, the following definitions apply:

3.1 sewing thread: A structure of staple fibre and/or filaments produced by any of a variety of techniques such that the cohesive whole can withstand the mechanical operation of sewing.

NOTE 1 Processes such as spinning, twisting, braiding, plaiting, bonding, false twist or air-jet texturing, etc., (used either individually or in combination) are employed to attain the necessary consolidation of fibres and/or filaments required in a sewing thread. An appropriate finish or lubricant can be added to facilitate sewing.

NOTE 2 Different finishes, such as soft and glacé corespun, unbonded and bonded continuous filament polyamide, etc., may also be available for specific uses.

3.2 ticket size; ticket number:

a measure of the linear density of a sewing thread expressed as the approximate three-ply equivalent of the metric count of the input single yarn(see annex A).

3.3 air-jet textured thread:

thread made from consolidation of continuous filament yarns produced by controlled over-feeding in a turbulent air stream.

3.4 false twist textured thread:

thread made from continuous filament yarns which have been subjected to a false twist texturing process.

3.5 corespun thread:

thread made from yarns produced at the spinning frame by feeding a filament yarn through the delivery rollers simultaneously with the spinning of a staple material.

3.6 minimum average breaking force:

the average value of 10 tests from one individual package/unit.

4 Requirements

4.1 Breaking force

Threads shall comply with the appropriate requirements of tables 1 to 15. The tables show the main numbers available to the trade but other numbers may be available for which the breaking force requirements shall be obtained by interpolation from tex values.

4.2 Colour fastness

The colour fastness requirements of general purpose threads for use in the garment trade shall be not lower than those specified in table 16.

4.3 Shrinkage

The maximum boiling water shrinkage of the threads excluding false twist textured threads shall be $< 2\%$ for sewing threads for garments when tested in accordance with either of the methods described in annex B or as agreed between supplier and purchaser

5 Statement of conformity

If required by the purchaser, a statement of conformity shall be provided giving to the following information:

- a) the name, trademark or other means of identification of the manufacturer or supplier;
- b) reference to this European Standard, ie. EN 12590:1999
- c) the thread type and thread designation in accordance with tables 1 to 15;
- d) indication that the thread properties conform to the requirements of 4.2 and 4.3, or that these properties are not required.

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Table 1 - Breaking force requirements for continuous filament polyester threads

Ticket number	Approximate resultant tex Method of test EN ISO 2060	Minimum average breaking force (N) Method of test EN ISO 2062
360	8,0	4,2
250/240	12,5	6,2
220/200	15,0	7,8
180	16,5	8,0
120	25,0	12,5
100	30,0	14,0
90	33,5	15,5
80	37,5	18,5
70	46,0	22,0
60	50,0	24,0
50	64,0	30,0
40	75,0	37,0
36/35	89,0	41,0
30	100	46,0
25	115	60,0
24/20	150	70,0
18	190	88,0
15/14/13	220	105
12/11	285	140
10	320	157
9/8	395	185
7	435	220
6	610	280
5/4	800	352

Table 2 - Breaking force requirements for staple fibre polyester threads

Ticket number	Approximate resultant tex Method of test EN ISO 2060	Minimum average breaking force (N) Method of test EN ISO 2062
220	15,5	3,7
180	21,0	5,0
150	22,0	5,5
120	31,0	8,2
100	33,0	9,5
80	47,0	12,0
75/70	49,0	12,8
60	56,0	14,5
50	66,0	18,5
30	100	29,0
20	160	44,0
11	280	85,0
9	330	96,0
8/7	400	120
6	500	144
5	580	168
4	665	192
3	830	240

Table 3 - Breaking force requirements for air jet textured polyester threads

Ticket number	Approximate resultant tex Method of test EN ISO 2060	Minimum average breaking force (N) Method of test EN ISO 2062
220	15,0	5,0
180	16,0	6,0
150	24,0	7,0
120	29,0	8,5
100	34,0	10,0
80/75	48,0	15,5
50	68,0	20,0
36/35	110	34,0
25	130	36,0
20	155	50,0