



SLOVENSKI STANDARD
SIST EN ISO 10618:2000

01-december-2000

Ogljikova vlakna - Ugotavljanje nateznih lastnosti prej, impregniranih s smolo (ISO 10618:1999)

Carbon fibre - Determination of tensile properties of resin-impregnated yarns (ISO 10618:1999)

Kohlenstoffasern - Bestimmung des Zugverhaltens eines harzprägnierten Garnes (ISO 10618:1999)

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Fibres de carbone - Détermination des propriétés en traction sur fils imprégnés de résine (ISO 10618:1999)

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ICS:

59.100.20

Ogljikovi materiali

Carbon materials

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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 10618

August 1999

ICS 59.100.00

English version

Carbon fibre - Determination of tensile properties of resin-impregnated yarns (ISO 10618:1999)

Fibres de carbone - Détermination des propriétés en traction sur fils imprégnés de résine (ISO 10618:1999)

Kohlenstoffasern - Bestimmung des Zugverhaltens eines harzimprägnierten Garnes (ISO 10618:1999)

This European Standard was approved by CEN on 2 July 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

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

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EN ISO 10618:1999

Foreword

The text of the International Standard ISO 10618:1999 has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with 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 February 2000, and conflicting national standards shall be withdrawn at the latest by February 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.

Endorsement notice

The text of the International Standard ISO 10618:1999 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

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Annex ZA (normative)
Normative references to international publications
with their relevant European publications

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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 291	1997	Plastics - Standard atmospheres for conditioning and testing	EN ISO 291	1997
ISO 527-1	1993	Plastics - Determination of tensile properties - Part 1: General principles	EN ISO 527-1	1996
ISO 1886	1990	Reinforcement fibres - Sampling plans applicable to received batches	EN ISO 1886	1994
ISO 1889	1997	Reinforcement yarns - Determination of linear density	EN ISO 1889	1997
ISO 10548	1994	Carbon fibre - Determination of size content	EN ISO 10548	1996

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INTERNATIONAL STANDARD

ISO
10618

First edition
1999-08-01

Carbon fibre — Determination of tensile properties of resin-impregnated yarn

*Fibres de carbone — Détermination des propriétés en traction sur fils
imprégnés de résine*

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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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 10618 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 13, *Composites and reinforcement fibres*.

Annexes A to D of this International Standard are for information only.

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Carbon fibre — Determination of tensile properties of resin-impregnated yarn

1 Scope

This International Standard specifies a method of test for the determination of the tensile strength, tensile modulus of elasticity and strain at maximum load of a resin-impregnated yarn specimen. The method is applicable to yarns (continuous and staple-fibre yarns) of carbon fibre for use as reinforcements in composite materials.

The tensile modulus of elasticity may be calculated by one of two methods, A and B. The result obtained will not necessarily be the same in each case.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 291:1997, *Plastics — Standard atmospheres for conditioning and testing*.

ISO 527-1:1993, *Plastics — Determination of tensile properties — Part 1: General principles*.

ISO 1886:1990, *Reinforcement fibres — Sampling plans applicable to received batches*.

ISO 1889:1997, *Reinforcement yarns — Determination of linear density*.

ISO 10119:—¹⁾, *Carbon fibre — Determination of density*.

ISO 10548:1994, *Carbon fibre — Determination of size content*.

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 527-1 apply, with the following addition:

3.1

cross-sectional area of a yarn

A_f

the linear density of a yarn divided by the density of the material in the yarn

NOTE It is expressed in square metres.

1) To be published. (Revision of ISO 10119:1992)