Carbon fibre yarns - Part 2: Methods of test and general specifications

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13002-2:2001 sisaldab Euroopa standardi EN 13002-2:1999 ingliskeelset teksti. Käesolev dokument on jõustatud 18.06.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 13002-2:2001 consists of the English text of the European standard EN 13002-2:1999. This document is endorsed on 18.06.2001 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This standard is applicable to high-performance, high modulus carbon fibre filament yarns as defined in mateterial standards. The carbon fibre filament yarns are used for manufacturing semi-finished products and for reinforcing metallic, plastic and ceramic parts.	**Scope:** This standard is applicable to high-performance, high modulus carbon fibre filament yarns as defined in mateterial standards. The carbon fibre filament yarns are used for manufacturing semi-finished products and for reinforcing metallic, plastic and ceramic parts.

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Võtmesõnad:

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English version

Carbon fibre yarns

Part 2: Test methods and general specifications

Fils de carbone – Partie 2: Méthodes d'essais et spécifications générales

Kohlenstoffilamentgarne – Teil 2: Prüfverfahren und allgemeine Festlegungen

This European Standard was approved by CEN on 1999-03-04.

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.

The European Standards exist 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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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Contents

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.

This standard is one part of EN 13002 which is structured as follows :

- *Carbon fibre yarns - Part 1 : Designation.*

- *Carbon fibre yarns - Part 2 : Test methods and general specifications.*

- *Carbon fibre yarns - Part 3 : Technical specifications .*

1 Scope

This Standard is applicable to high-performance, high modulus carbon fibre filament yarns as defined in material standards. The carbon fibre filament yarns are used for manufacturing semi-finished products and for reinforcing metallic, plastic and ceramic parts. Polyacrylonitrile, pitch or viscose filament yarns are used as precursor which are transformed into carbon fibre filament yarns by controlled pyrolysis.

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.

prEN ISO 10618, *Carbon fibre - Determination of tensile properties by resin-impregnated yarns (ISO/DIS 10618:1994).*

EN ISO 1886, *Reinforcement fibres Sampling plans applicable to received batches (ISO 1886 : 1990)*

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

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

EN ISO 10548, *Determination of size content of carbon fibre (ISO 10548 : 1994)*

ISO 472, *Plastics – Vocabulary.*

ISO 472:1988/AM5:1996, *Plastics – Vocabulary – AMENDMENT 5: Terms relating to carbon.*

ISO 2859-1, *Sampling procedure for inspection by attributes - Part 1: Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection.*

ISO 10119, *Carbon fibre - Determination of density.*

3 Definitions

For the purposes of this European Standard, the definitions given in ISO 472, ISO 472:1988/AM5:1996 and the following definitions apply:

3.1
qualification testing
evaluation of one or several successive lots of a given product to demonstrate that the product meets the requirements of the applicable specification

3.2
acceptance testing
evaluation of a received lot of a given product to demonstrate that lot fulfils the requirements of the applicable specification

4 Yarn characteristics

4.1 Physical properties

According to the relevant material standards for carbon fibre filament yarns.