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## Süsinikkiud. Metisisalduse määramine

Carbon fibre - Determination of size content

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 10548:2003 sisaldab Euroopa standardi EN ISO 10548:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 14.10.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 10548:2003 consists of the English text of the European standard EN ISO 10548:2003.</p> <p>This document is endorsed on 14.10.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> This International Standard specifies test methods for the determination of the size content of carbon fibre yarn. It is applicable to continuous- filament yarns and stable-fibre yarns</p>	<p><b>Scope:</b> This International Standard specifies test methods for the determination of the size content of carbon fibre yarn. It is applicable to continuous- filament yarns and stable-fibre yarns</p>
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ICS 59.100.20

Võtmesõnad:

**English version**

**Carbon fibre**

Determination of size content  
(ISO 10548 : 2002)

Fibres de carbone – Détermination du  
taux d'ensimage (ISO 10548 : 2002)

Kohlenstofffasern – Bestimmung des  
Präparationsmassenanteils  
(ISO 10548 : 2002)

This European Standard was approved by CEN on 2003-06-05.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

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## Foreword

International Standard

ISO 10548 : 2002 Carbon fibre – Determination of size content, which was prepared by ISO/TC 61 'Plastics' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 249 'Plastics', the Secretariat of which is held by IBN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by January 2004 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland, and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 10548 : 2002 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

## Contents

	Page
1 Scope .....	3
2 Normative reference .....	3
3 Terms and definitions .....	3
4 Principle .....	3
5 Test specimens .....	4
6 Conditioning .....	4
7 Test methods .....	4
7.1 Method A: Solvent extraction .....	4
7.2 Method B: Digestion with sulfuric acid and hydrogen peroxide .....	6
7.3 Method C: Decomposition by pyrolysis .....	9
8 Precision .....	10
9 Test report .....	10

## 1 Scope

This International Standard specifies test methods for the determination of the size content of carbon fibre yarn. It is applicable to continuous-filament yarns and staple-fibre yarns.

## 2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, this publication do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the normative document 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 1886:1990, *Reinforcement fibres — Sampling plans applicable to received batches*

## 3 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply.

### 3.1

#### size

any material applied to fibres to facilitate the handling and use of the fibres

### 3.2

#### size content

mass of the size expressed as a percentage of the sized carbon fibre yarn

## 4 Principle

Test specimens are weighed before and after removal of the size by one of the following three methods:

- **method A:** size removal by Soxhlet extraction, to be used when the size is completely soluble in a suitable solvent;
- **method B:** size removal by chemical digestion using a mixture of sulfuric acid and hydrogen peroxide, used when the size is partially hardened and not completely soluble in solvents;
- **method C:** size decomposition by pyrolysis at high temperature in an atmosphere of nitrogen, used when the size is completely removed by pyrolysis.

Methods A and B require the last weighing to be made to constant mass by repetition of the final drying and weighing procedure. In those cases where known materials are being tested regularly, it is permitted to define, by experiment, a minimum time for drying which will ensure that constant mass has been reached. Particular care may be required if the carbon fibre or sizing is water-absorbent.