# Reinforcements - Specification for multi-axial multi-ply fabrics - Part 2: Methods of test and general requirements

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# **EESTI STANDARDI EESSÕNA**

# **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 13473-2:2001 sisaldab Euroopa standardi EN 13473-2:2001 ingliskeelset teksti.

Käesolev dokument on jõustatud 19.10.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 13473-2:2001 consists of the English text of the European standard EN 13473-2:2001.

This document is endorsed on 19.10.2001 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 part 2 of EN 13473 defines the test methods to be used to determine the designated and specified properties fiven in Parts 1 and 3 respectively. Part 2 of EN 13473 defines the general requirements applicable to the specification of all types of multi-axial multi-ply fabrics within the scope of this specification as defined in Part 1 of the Standard.

# Scope:

This part 2 of EN 13473 defines the test methods to be used to determine the designated and specified properties fiven in Parts 1 and 3 respectively. Part 2 of EN 13473 defines the general requirements applicable to the specification of all types of multi-axial multi-ply fabrics within the scope of this specification as defined in Part 1 of the Standard.

**ICS** 59.100.99, 83.120

**Võtmesõnad:** cover pass, fixing (photography), foams, foil, loops, materials, non-woven cloth, product specification, properties, reinforcement fibres, reinforcing material, sheets, spacers, specification, surface patterns, testing, textile products

# EUROPEAN STANDARD NORME EUROPÉENNE

EN 13473-2

EUROPÄISCHE NORM

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ICS 59.100.99; 83.120

## **English version**

# Reinforcement - Specifications for multi-axial multi-ply fabrics - Part 2: Methods of test and general requirements

Renfort - Spécifications pour les tissus multi-axiaux multicouches - Partie 2: Méthodes d'essai et exigences générales Verstärkungen - Spezifikation für Multiaxialgelege - Teil 2: Prüfverfahren und allgemeine Produktanforderungen

This European Standard was approved by CEN on 10 May 2001.

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 Management Centre 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 Management Centre 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.



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 December 2001, and conflicting national standards shall be withdrawn at the latest by December 2001.

This standard is one part of EN 13473, «Reinforcement - Specifications for multi-axial multi-ply fabrics» which is constructed as follows:

- Part 1: Designation
- Part 2: Methods of test and general requirements
- Part 3: Specific requirements

This standard includes a Bibliography.

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 Part 2 of EN 13473 defines the test methods to be used to determine the designated and specified properties given in Parts 1 and 3 respectively.

Part 2 of EN 13473 defines the general requirements applicable to the specification of all types of multi-axial multiply fabrics falling within the scope of this specification as defined in Part 1 of this standard.

# 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 (including amendments).

EN 13473-1, Reinforcement - Specifications for multi-axial multi-ply fabrics - Part 1: Designation

EN ISO 527-4, Plastics – Determination of tensile properties – Part 4: Test conditions for iso-tropic and orthotropic fibre-reinforced plastic composites (ISO 527-4:1997)

EN ISO 3344, Reinforcement products – Determination of moisture content (ISO 3344:1997)

EN ISO 10548, Carbon fibre – Determination of size content (ISO 10548:1994)

ISO 472, Plastics – Vocabulary

ISO 1887, Textile glass - Determination of combustible-matter content

ISO 1888, Textile glass - Staple fibres or filaments - Determination of average diameter

ISO 3374, Reinforcement products - Mats and fabrics - Determination of mass per unit area

ISO 4603, Textile glass - Woven fabrics - Determination of thickness

ISO 5025, Reinforcement products - Woven fabrics - Determination of width and length

ISO 11567, Carbon fibre - Determination of filament diameter and cross-sectional area

# 3 Terms and definitions

For the purposes of this European Standard, the following definitions given in ISO 472 and EN 13473-1 apply.

# 4 List of physical properties

The list of physical properties with the applicable test method shall be considered as a guide for the selection of the properties and limits which result of technical specifications of the application.