

# SLOVENSKI STANDARD SIST EN 14118-2:2003

01-julij-2003

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Reinforcement - Specifications for textile glass mats (chopped strand and continuous filament mats) - Part 2: Methods of test and general requirements

Verstärkungsprodukte - Spezifikation für Textilglasmatten (Glasseiden- und Endlosmatten) - Teil 2: Prüfverfahren und allgemeine Anforderungen

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Renfort - Spécifications des mats de verre textile (mats a fils coupés et mats a fils continus) - Partie 2: Méthodes d'essai et exigences générales

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Ta slovenski standard je istoveten z: EN 14118-2-2003

ICS:

59.100.10 Materiali iz steklenih vlaken Textile glass materials

SIST EN 14118-2:2003 en

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM EN 14118-2

February 2003

ICS 59.100.10

#### English version

# Reinforcement - Specifications for textile glass mats (chopped strand and continuous filament mats) - Part 2: Methods of test and general requirements

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This European Standard was approved by CEN on 28 November 2002.

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

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

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## EN 14118-2:2003 (E)

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#### **Foreword**

This document (EN 14118-2:2003) 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 August 2003, and conflicting national standards shall be withdrawn at the latest by August 2003.

This standard is one part of EN 14118 which is structured as follows:

- Reinforcement Specifications for textile glass mats (chopped strand and continuous filament mats) – Part 1 : Designation
- Reinforcement Specifications for textile glass mats (chopped strand and continuous filament mats) – Part 2 : Methods of test and general requirements
- Reinforcement Specifications for textile glass mats (chopped strand and continuous filament mats) Part 3: Specific requirements | A R D P R R V IR W

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

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#### EN 14118-2:2003 (E)

#### 1 Scope

This European Standard provides the list of test methods and general requirements for chopped strand and continuous filament mats covered by part 1.

#### 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 amendments or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 14118-3:2003, Reinforcement – Specifications for textile glass mats (chopped strand and continuous filament mats) – Part 3: Specific requirements

EN ISO 472:2001, Plastics - Vocabulary (ISO 472:1999).

EN ISO 1043, Plastics - Symbols and abbreviated terms

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

EN ISO 2078, Textile glass - Yarns - Designation (ISO 2078:1993)

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

ISO 1887, Textile glass - Determination of combustible-matter content ISO 2558, Textile glass chopped-strand mats for reinforcement of plastics Determination of time of dissolution of the binder in styrene

ISO 3342, Textile glass - Mats - Determination of tensile breaking force.

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

ISO 3616, Textile glass - Chopped-strand and continuous-filament mats - Determination of average thickness, thickness under load and recovery after compression.

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

#### 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN ISO 472:2001 and the following apply.

#### 3.1

#### characteristics properties

properties not normally subject to planned quality control in the mat production process

#### 3.2

#### controlled properties

quantitative properties normally subject to planned quality control in the mat production process

#### 3.3

#### visual properties

qualitative properties not necessarily subject to planned quality control in the mat production process

# 4 Properties

# 4.1 Characteristics properties

Property	Mandatory	Optional	Test method	Remark
Glass type		all	EN ISO 2078 <sup>a</sup>	
Strand linear density (tex)		all	EN ISO 1889	
Binder type	all		EN ISO 1043 a	emulsion or powder type
Recommended matrix compatibility	all		/	
Solubility of the binder				there are 3 degrees of solubility:
in styrene (s)		CSM	ISO 2558	high (< 60 s), medium and low (> 200 s)
Thickness (mm)		CFM	ISO 3616	
Edges of the roll	all		/	untrimmed or trimmed on one or both sides
Nominal length of the roll (m)		all		3 pieces maximum in a roll ; 5 m minimum length for each piece
<sup>a</sup> gives definitions and codes, without test method.				

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4.2 Controlled properties

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Property	Mandatory	Optional	Test method	Remark
mass per unit area (g/m²)	SIST FN 141	18-2:2003	ISO 3374	0
combustible matter (%) c811	baa7abuc/sist-6	n-14118-2-2	003 ISO 1887	it includes sizing and binder materials and excludes water
tensile strength (N)		CSM	ISO 3342	
moisture content (%)	CSM		EN ISO 3344	
width of the roll (cm)	all		ISO 5025	standard for woven fabrics used for mats

### 4.3 Visual properties

poorly bonded areas;

The mat shall be uniform in appearance. The roll shall be wound with appropriate compaction and the edges aligned so that telescoping does not exceed a given tolerance (see 5.3 in part 3).

Listed below are a number of recognised visible non-conformities which may exist in a mat, produced during manufacture or during subsequent handling :

	tears;
_	holes;
_	dirty marks; grease spots; dark strands; foreign matter
_	clumps of strands or strips of binder;
_	locally thin areas ;

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irregular edges.

# 5 Labelling, Packaging, Storage conditions

Each roll of mat and each pallet shall bear a label providing the data that will enable material traceability:

- manufacturer's name;
- mat designation (shortened to commercial name, mass per unit area, width of the roll);
- mass of the roll (net);
- manufacturer's production and traceability references;
- nominal length of the roll (optional).

The packaging shall protect the product during handling, storage and transportation. To ensure to the material its original properties and a minimum shelf life of 12 months the following storage conditions are to be met. Direct sunlight or heat sources must be avoided. Glass fibre product must be kept dry. The optimal conditions for storage shall be at a temperature between 10 °C to 35 °C and a relative humidity of less than 85 %. To avoid problems with humidity or static electricity, the glass fibre product should be conditioned in the working area prior to use. If the content of a packaging unit is only partly used, the packaging should be closed again to maintain the product in its original packaging. A first-in/first-out stock control system is not strictly necessary but will help to minimise the influence of adverse storage problems.

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