SLOVENSKI STANDARD
SIST EN 13393:2002

01-januar-2002

Embalaģa - Podrobni opis ģļ itnikov za robove

Packaging - Specification for Edge protectors

Verpackung - Spezifikation für Kantenschutzmittel

Emballage - Spécifications relatives aux cornieres

Ta slovenski standard je istoveten z: **EN 13393:2001**

ICS:

55.040	Materiali in pripomoļ ki za pakiranje	Packaging materials and accessories

SIST EN 13393:2002 **en**

EUROPEAN STANDARD

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English version

Packaging - Specification for Edge protectors

Emballage - Spécifications relatives aux cornières

Verpackung - Spezifikation für Kantenschutzmittel

This European Standard was approved by CEN on 18 January 2001.

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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.

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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 261 "Packaging", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by October 2001, and conflicting national standards shall be withdrawn at the latest by October 2001.

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 European Standard specifies the dimensions and physical properties of a range of edge protectors which are used in conjunction with tensional strapping.

2 Normative references

The following normative document contain provisions which, through reference in this text, constitute provisions of this European Standard. For dated references, subsequent amendments to, or revisions of, this publication, do not apply. However, parties to agreements based on this European 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 publication referred to applies (including amendments).

EN ISO 2233, *Packaging - Complete, filled transport packages - Conditioning for testing (ISO 2233:1994)*

3 Product description

3.1 Shape

Edge protectors are manufactured in a wide variety of forms and sizes, which are categorised as follows:

3.1.1 Flat

Flat or strip form used for product protection, normally folded or wrapped around the edge during application.

3.1.2 Corner protectors

Small moulded, cut or formed pieces (up to 100 mm in length) used as edge protection where no additional packaging strength is provided.

3.1.3 Profiles

Pre-formed lengths (greater than 100 mm in length) used for edge protection or reinforcement.

3.2 Material

Edge protectors are normally (but not exclusively) manufactured from recycled materials: metal, plastic, paper, composite, miscellaneous.

3.3 General

Because they are manufactured from recycled materials, edge protectors themselves may be subject to minor irregularities.

Edge protectors shall not delaminate.

For multiple ply protectors, different colours may be visible.

3.4 Mechanical properties of profiles

Edge protectors are required to perform in a wide range of environments, some of which may affect performance. Edge protectors shall not delaminate under these conditions.

For this reason, test pieces shall be conditioned for 72 h according to EN ISO 2233.

Because the mechanical properties of profiles may be variable, five test pieces are measured.

3.4.1 Three point bending strength test

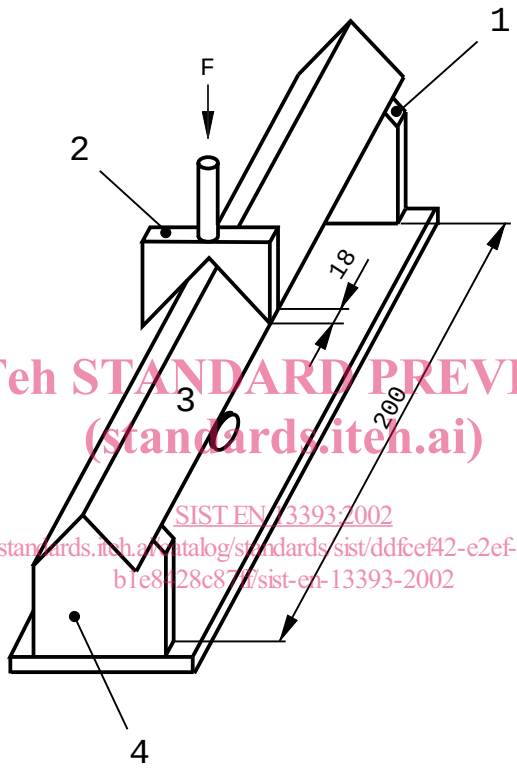
A sample of 230 mm (± 10 mm) is prepared in which the ends are smooth, free of burrs and parallel to one another.

The sample rests on two supports which are separated by 200 mm (See Figure 1).

The force is applied at a rate of 400 mm per minute (± 2,5 mm per minute).

The maximum force in newtons (N) to failure is recorded (Measure to 10 N accuracy).

Dimensions in millimeters



Key

1 Support
2 Moving part
3 Sample
4 Support

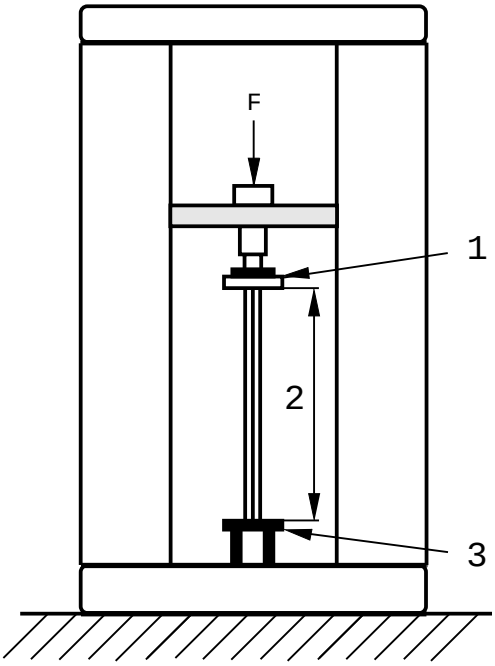
Figure 1 — Three-point bend

3.4.2 Column crush strength test

A sample of 230 mm (± 5 mm) is prepared in which the ends are smooth and free of burrs (See Figure 2)

The force is applied perpendicular to the length of the test piece in newtons (N) at a rate of 10 mm per minute (± 2,5 mm per minute).

The maximum force in newtons (N) to failure is recorded (Measure to 10 N accuracy).



Key

1 Moving platen 2 Sample 3 Fixed platen

Figure 2 — Compression

3.5 Dimensions of profiles

3.5.1 Length

Profiles are available in any length between 100 mm and 6000 mm. Length shall be determined between supplier and customer.

Length tolerance for pieces up to 500 mm ± 5 mm

Length tolerance for pieces up to 2500 mm ± 10 mm

Length tolerance for pieces > 2500 mm ± 20 mm

The length is measured parallel to the axis on the inside of the profile.

3.5.2 Thickness

Profiles are available in various thicknesses from 1,5 mm to 6 mm.

Thickness tolerance	Nominal	1,5 mm to 2 mm	+ 0,4/-0,3 mm
		> 2 mm	+ 0,4/-0,4 mm