



SLOVENSKI STANDARD
SIST EN 636-3:1997

01-april-1997

Vežan les - Specifikacije - 3. del: Zahteve za uporabo vežanega lesa v zunanjih pogojih

Plywood - Specifications - Part 3: Requirements for plywood for use in exterior conditions

Sperrholz - Anforderungen - Teil 3: Anforderungen an Sperrholz zur Verwendung im Außenbereich

Contreplaqué - Exigences - Partie 3: Exigences pour contreplaqué utilisé en milieu extérieur

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79.060.10 Vežan les Plywood

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EUROPEAN STANDARD

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English version

Plywood - Specifications - Part 3: Requirements for plywood for use in exterior conditions

Contreplaqué - Exigences - Partie 3: Exigences
pour contreplaqué utilisé en milieu extérieur

Sperrholz - Anforderungen - Teil 3:
Anforderungen an Sperrholz zur Verwendung im
Außenbereich

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REPUBLIKA SLOVENIJA
MINISTRSTVO ZA ZNANOST IN TEHNOLOGIJO
Urad RS za standardizacijo in meroslovje
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SIST. EN 636-3

PREVZET PO METODI RAZGLASITVE

-04- 1997

This European Standard was approved by CEN on 1996-12-05. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and 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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Foreword

This European Standard has been prepared by Working Group 2 "Plywood" of Technical Committee CEN/TC 112 "Woodbased panels", the secretariat of which is held by DIN.

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 June 1997, and conflicting national standards shall be withdrawn at the latest by June 1997.

This standard is one of a series of standards specifying requirements for plywood. The other parts of this series are listed in annex B.

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According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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 basic requirements for plywood for use in exterior conditions.

Additional information on supplementary properties for certain applications is also given.

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.

EN 310

Wood-based panels – Determination of modulus of elasticity in bending and of bending strength

EN 314-1

Plywood – Bonding quality – Part 1: Test methods

EN 314-2

Plywood – Bonding quality – Part 2: Requirements

EN 315

Plywood – Tolerances for dimensions

EN 323

Wood-based panels – Determination of density

EN 324-1

Wood-based panels – Determination of dimensions of boards – Part 1: Determination of thickness, width and length

EN 324-2

Wood-based panels – Determination of dimensions of boards – Part 2: Determination of squareness and edge straightness

EN 335-3

Durability of wood and wood-based products – Definition of hazard classes of biological attack – Part 3: Application to wood-based panels

EN 717-2

Wood-based panels – Determination of formaldehyde release – Part 2: Formaldehyde release by the gas analysis method

EN 1058

Wood-based panels – Determination of characteristic values of mechanical properties and density

EN 1072

Plywood – Description of bending properties for structural plywood

EN 1084

Plywood – Formaldehyde release classes determined by the gas analysis method

prEN 12369

Wood-based panels – Characteristic values for established products

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3 Definition

For the purposes of this standard the following definition applies:

plywood for use in exterior conditions: Plywood used in unprotected external applications as defined in hazard class 3 of EN 335-3. It is capable of withstanding exposure to weathering conditions and liquid water, or water vapour in a damp but ventilated location where it can have a moisture content frequently above 20 %.

4 Requirements

4.1 Tolerances on dimensions

The tolerances on dimensions shall be as specified in EN 315.

4.2 Bonding quality

The bonding quality shall comply with the requirements of bonding class 3 of EN 314-2.

4.3 Biological durability

Plywood shall be appropriate for prevailing climatic conditions. The risk of attack is outlined in hazard class 3 of EN 335-3. Guidance on factors affecting durability and on precautionary measures which may be considered as necessary can be found in prENV 1099 and in EN 335-3.

4.4 Mechanical characteristics

4.4.1 General

The mechanical properties of plywood for use in exterior conditions shall be determined according to their application.

For structural application, refer to 4.4.2, and for non-structural application, refer to 4.4.3.

4.4.2 Structural application

The characteristic values of the mechanical properties either shall be taken from prEN 12369 or shall be determined according to EN 1058.

The bending properties shall be used to identify the plywood in accordance with EN 1072.

4.4.3 Non-structural application

Bending properties may be determined on small test pieces in accordance with EN 310.

4.5 Formaldehyde release

The formaldehyde release class A, B or C shall be expressed as specified in EN 1084.

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5 Supplementary properties

For certain applications information on some supplementary properties can be required. Some of these supplementary properties are listed in table A.1. On request this information should be provided by the supplier.

These properties shall be determined according to the European Standards listed in table A.1. If there is no European Standard available the method used shall be fully described in the test report.

6 Verification of compliance

6.1 General

Verification of compliance with this European Standard shall be carried out using the test methods listed in table 1.

6.2 External control

External control of the factory, if any, shall be carried out according to a statistical basis¹⁾.

Inspection of consignments, if any, shall be carried out according to a statistical basis¹⁾.

In the case of formaldehyde release, however, for both external control and inspection of a consignment of panels, the respective requirement set out in EN 1084 shall be met by the average value of at least three boards controlled. Additionally, no individual board is allowed to exceed an upper deviation limit of +10 %.

For bonding quality and initial inspection (see prEN 326-2) in the factory, the size of the inspection lot shall be between 501 and 1 200 panels with production dates (see NOTE).

The size of the sample for test purpose shall be 32 panels.

NOTE: If a high level of reliability is proved by the internal inspection records, the size of the initial sampling may be reduced in agreement with the inspection agency.

6.3 Internal control

Internal control shall be carried out according to a statistical basis¹⁾.

The properties listed in table 1 shall be controlled using at least the frequencies of testing given in table 1. Sampling shall be carried out at random. Alternative test methods and/or unconditioned test pieces may be used if a valid correlation to the specified test methods can be proven (see prEN 326-2¹⁾). The frequencies of testing given in table 1 are related to a production under statistical control.

If a given property does not meet the requirements, frequency shall be increased in accordance with internal procedures in the mill or those specified by an external inspection agency, if any.

¹⁾ It is intended to apply prEN 326-2 and prEN 326-3 (which are under preparation for the time being) as a statistical basis when implemented.

Table 1: Minimum frequencies of testing for each factory

Property	Test method	Minimum frequency of testing
Dimensional tolerances	EN 324-1, EN 324-2	One panel per 8 h or per shift
Bending properties – non-structural panels – structural panels	EN 310	Two panels per month whatever the lay-up One panel per 1 000 panels produced, but not more than one per shift
Density structural panels	EN 323	One panel per 1 000 panels produced, but not more than one per shift.
Bonding quality	EN 314-1	One pair of glue-lines per every 2 000 pairs of gluelines produced whatever the lay-up of the panel, but not more than one per shift
Formaldehyde release	EN 717-2	One panel per week ¹⁾ .
¹⁾ Where it can be proven that certain types of plywood have very little or no formaldehyde release, with the respect to the limits specified in EN 1084, then it is not necessary to carry out quality control test for formaldehyde release with this frequency.		

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7 Marking, identification and documentation (standards.iteh.ai)

Panels which comply with this standard shall be marked to provide the following information:

- the name (or logo) or code of the manufacturer;
- the number of this European Standard, EN 636-3;
- the type of panel (trade mark);
- the nominal thickness in millimetres;
- the formaldehyde release class;
- the quality label and the certification body, if any.

NOTE 1: Further documents, if requested, will be provided by the manufacturer.

NOTE 2: In case of cut-size panels, where the first purchaser is the user of the product and where he agrees that marking (other than on the package) is unnecessary, the marking of such individual panels in the package need not be undertaken.

Annex A (informative)**Supplementary properties**

Table A.1 lists the main supplementary properties together with the appropriate references.

Table A.1: Supplementary properties

Physical properties	Test method	Reference document
<ul style="list-style-type: none"> - Dimensional changes - Classification by surface appearance - Ability for finishing 	EN 318	EN 635-1 EN 635-2 EN 635-3 ENV 635-4
Mechanical properties	Test method	Reference document
<ul style="list-style-type: none"> - Tension properties - Shear properties - Compression properties - Resistance to withdrawal of screws 	EN 789 EN 789 EN 789 EN 320	prEN 12369 prEN 12369 prEN 12369
Performance properties	Test method	Reference document
<ul style="list-style-type: none"> - Flooring - Walling - Roofing 	prEN 1195 SIST EN 636-3:1997 EN 594 and 596 [7]	[1] and [2] [3] and [4] [5] and [6]
<p>NOTE: For certain applications, information on additional properties not specified in table A.1 can be required. For instance, for the determination of thermal conductivity and water vapour transmission properties work is in progress in CEN/TC 89. Until this work is completed, users should refer to national publications. These should also be consulted for information on the fire behaviour of plywood.</p>		