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Puitplaadid. Formaldehüüdi sisalduse määramine. **Ekstraktsioonmeetod (perforaatormeetod)**

Wood based panels Determination of formaldehyde content - Extraction method called the perforator method





EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 120:2002 sisaldab Euroopa standardi EN 120:1992 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 22.11.1999 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 07.07.1992.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 120:2002 consists of the English text of the European standard EN 120:1992.

This standard is ratified with the order of Estonian Centre for Standardisation dated 22.11.1999 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 07.07.1992.

The standard is available from Estonian standardisation organisation.

ICS 79.060.10

Võtmesõnad: ekstraktsioonmeetodid, keemiline analüüs, perforaatorid, puitkiudplaadid, puitlaastplaadid, puitplaadid, sisalduse määramine, vineer

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 120

July 1992

UDC 674.03: 620.1: 543.242.3: 547.281.1

Supersedes EN 120: 1984.

Descriptors: Wooden board, particleboard, plywood, chemical analysis, determination of formaledyhde content, extraction method, perforator method.

English version

Wood-based panels

Determination of formaldehyde content

Extraction method (called the perforator method)

Panneaux à base de bois; détermination de la teneur en formaldéhyde; méthode d'extraction dite méthode au perforateur Holzwerkstoffe; Bestimmung des Formaldehydgehalts; Extraktionsverfahren (genannt Perforatormethode)

This European Standard was approved by CEN on 1992-07-01.

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.

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 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

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Foreword

This European Standard was prepared by Working Group 5 'Formaldehyde' of Technical Committee CEN/TC 112 'Woodbased panels', the Secretariat of which is held by DIN.

This European Standard is based on the October 1984 edition. At that time, the work was the responsibility of CEN/TC 91 'Particleboards – Formaldehyde' and it was only intended for determining the formaldehyde content of particleboards+). The basis was an extraction method developed by the European Federation of Associations of Particleboard Manufacturers (FESYP) and known as the 'Perforator method'. This method was intended for testing particularly particleboards+) at the manufacturing stage, and was later adapted for testing all wood-based panels.

For this European Standard, a mandate 'Timber structures' has been given to CEN and EFTA in the framework of the Directive on the approximation of the laws, regulations and administrative provisions of the Member States relating to construction products (89/106/EEC).

National standards identical to this European Standard shall be published, and conflicting national standards withdrawn, by 93-01-31 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, 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 United Kingdom.

Introduction

The 'perforator value' as determined by the method laid down in this standard is considered to be the 'formaledhyde content' of the tested board.

The test results shall be considered in relation to the specific board conditions at the time of testing.

The emission of formaldehyde from wood-based panels (e.g. particleboard, plywood, fibreboard) is a complex process.

For a given board, the test result depends upon the age, ageing conditions, moisture content, etc. at the time of testing. In addition, the correlation between the perforator value and the formaldehyde emission of the board depends on the type of board.

1 Scope

This European Standard specifies an extraction method, known as the 'Perforator method'. It is used for the determination of the formaldehyde content of unlaminated and uncoated wood-based panels.

2 Normative reference

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 322 Wood-based panels; determination of moisture content

3 Principle

The formaldehyde is extracted from test pieces by means of boiling toluene and then transferred into distilled or demineralized water. The formaldehyde content of this aqueous solution is determined photometrically by the acetylacetone method.