Determination of the uplift resistance of installed clay or concrete tiles for roofing - Roof system test method

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 14437:2022 sisaldab Euroopa standardi EN 14437:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 14437:2022 consists of the English text of the European standard EN 14437:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 30.11.2022.	Date of Availability of the European standard is 30.11.2022.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.060.20

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14437

November 2022

ICS 91.060.20

Supersedes EN 14437:2004

English Version

Determination of the uplift resistance of installed clay or concrete tiles for roofing - Roof system test method

Détermination de la résistance au soulèvement des tuiles en terre cuite ou en béton mises en œuvre sur la toiture - Méthode d'essai par système de toiture

Bestimmung des Abhebewiderstandes von verlegten Dachziegeln oder Dachsteinen - Prüfverfahren für Dachsysteme

This European Standard was approved by CEN on 29 August 2022.

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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 CEN-CENELEC 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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Ref. No. EN 14437:2022 E

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European foreword

This document (EN 14437:2022) has been prepared by Technical Committee CEN/TC 128 “Roof covering products for discontinuous laying and products for wall cladding”, the secretariat of which is held by NBN.

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 May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 14437:2004.

In comparison with the previous edition, the following technical modifications have been made: the test method has not changed, but the interpretation of the results includes the introduction of serviceability and ultimate failure loads in accordance with Eurocode EN 1990.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

This document gives a test method and failure criteria for determining the uplift resistance of clay or concrete tiles for roofing.

The results of this test may be used to determine the uplift force which can be withstood by the fixing, e.g. to withstand wind force.

1 Scope

This document specifies a test method to establish the uplift resistance of installed clay or concrete tiles for roofing, complying with the relevant product standard, EN 490 or EN 1304, which are unfixed or mechanically fixed to the substructure.

NOTE The test method has been developed for clay or concrete tiles for roofing, but can apply to other discontinuously laid small elements, such as: slates; fibre cement slates; stones; and, adapted accordingly, to photovoltaic and solar thermal panels.

The test method is applicable to mechanical fixings such as clips, hooks, screws and nails.

The method is not applicable to fixed tiles having fixing patterns with less than every third tile fixed.

The test method is not applicable to under and over tiles. Examples of these tiles are given in Annex F.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp/ui

— IEC Electropedia: available at https://www.electropedia.org/

3.1
discontinuously laid small elements
elements to be used for roof covering and wall cladding which are installed as separate elements and collectively form the roof covering

3.2
roof pitch
angle of elevation in degrees of the rafter from the horizontal

3.3
characteristic value
adopted value derived from a prescribed statistical analysis of a number of test results

3.4
roof system
system that comprises the structure of the battens, mechanical fixings (clips, hooks, nails and screws) as well as the clay and concrete tiles and fittings laid according to their laying specification

3.5
ultimate limit states
states associated with collapse or with other similar forms of structural failure

Note 1 to entry: They generally correspond to the maximum load-carrying resistance of a structure or structural member.

[SOURCE: EN 1990]