

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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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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EUROPEAN COMMITTEE FOR STANDARDIZATION
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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of an identical text or by endorsement, at the latest by May 2023, and conflicting national standards shall be withdrawn at the latest by May 2023.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.

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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]