

Flexible sheets for waterproofing - Determination of the resistance to wind load of mechanically fastened flexible sheets for roof waterproofing

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 16002:2018 sisaldab Euroopa standardi EN 16002:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 16002:2018 consists of the English text of the European standard EN 16002:2018.
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English Version

**Flexible sheets for waterproofing - Determination of the
resistance to wind load of mechanically fastened flexible
sheets for roof waterproofing**

Feuilles souples d'étanchéité - Détermination de la
résistance à l'arrachement au vent des feuilles souples
d'étanchéité de toiture fixées mécaniquement

Abdichtungsbahnen - Bestimmung des Widerstandes
gegen Windlast von mechanisch befestigten
bahnenförmigen Stoffen für die Dachabdichtung

This European Standard was approved by CEN on 9 November 2018.

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European foreword

This document (EN 16002:2018) has been prepared by Technical Committee CEN/TC 254 “Flexible sheets for waterproofing”, the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by June 2019 and conflicting national standards shall be withdrawn at the latest by June 2019.

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 16002:2010.

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

Introduction

The test is performed on a standard test configuration, i.e. a structural deck, a layer of insulation material and the mechanically fastened membrane(s).

For the determination of the performance of the mechanical fastening system (screw and washer), with or without possible substrates, ETAG 006:2012, Annex D may be used. The suppliers of these mechanical fastening systems should provide the required information.

For the calculation of the performance of wind load resistance of the whole roof, see the relevant national and/or international standards.

The result of this standard is the resistance to wind load of the flexible sheet expressed as the characteristic load per fastener. Safety factors may be defined by national regulation and/or within European or national application documents.

In principle, the test apparatus may also be used to assess (partially) bonded flexible sheets, but some modifications and additional guidance are needed. This is the reason to limit the scope of this standard to mechanically fastened sheets only.

1 Scope

This document specifies a test method to determine the resistance to wind load of mechanically fastened flexible sheets for roof waterproofing.

The assessment is limited to the performance of the mechanically fastened flexible sheets only. The test method does not include the determination of the performance of the mechanical fastener and/or the combination of the mechanical fastener and the substrate.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10346, *Continuously hot-dip coated steel flat products for cold forming — Technical delivery conditions*

EN 13162, *Thermal insulation products for buildings — Factory made mineral wool (MW) products — Specification*

EN 13416, *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Rules for sampling*

EN 13707, *Flexible sheets for waterproofing — Reinforced bitumen sheets for roof waterproofing — Definitions and characteristics*

EN 13956, *Flexible sheets for waterproofing — Plastic and rubber sheets for roof waterproofing — Definitions and characteristics*

ETAG 006:2012, *Guideline for European Technical Approval systems of systems mechanically fastened flexible roof waterproofing membranes*

ISO/IEC Guide 98-3, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13707 and EN 13956 and the following apply.

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

fastener

object to fasten the flexible sheet to a structural deck

Note 1 to entry: A fastener may be made of a metal washer or metal washer with a plastic sleeve and a screw, or a plastic washer with an integrated sleeve and a screw, or a metal bar/continuous strip and a screw.