

## SLOVENSKI STANDARD oSIST prEN 17873:2022

01-september-2022

# Hidroizolacijski trakovi - Podložne folije za strešne kritine in stene - Navodila za montažo in pritrditev za požarno testiranje

Flexible sheets for waterproofing - Underlays for discontinuous roof coverings and walls - Instructions for mounting and fixing for reaction to fire testing

Abdichtungsbahnen - Unterdeck- und Unterspannbahnen für Dachdeckungen und Wände - Anleitung für Befestigung und Montage für die Prüfung zum Brandverhalten

Feuilles souples d'étanchéité - Écrans souples de sous-toiture pour couverture en petits éléments discontinus et écrans souples pour murs extérieurs - Instructions de montage et de fixation pour l'essai de réaction au feu

Ta slovenski standard je istoveten z: prEN 17873

## ICS:

oSIST prEN 17873:2022		en,fr,de
91.100.50	Veziva. Tesnilni materiali	Binders. Sealing materials
13.220.50	Požarna odpornost gradbenih materialov in elementov	Fire-resistance of building materials and elements



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#### oSIST prEN 17873:2022

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

## DRAFT prEN 17873

July 2022

ICS 13.220.50; 91.100.50

**English Version** 

## Flexible sheets for waterproofing - Underlays for discontinuous roof coverings and walls - Instructions for mounting and fixing for reaction to fire testing

Feuilles flexibles pour l'imperméabilisation - Souscouches pour couvertures et murs discontinus -Instructions de montage et de fixation pour la réaction aux essais au feu Flexible Bahnen für Abdichtungen - Unterspannbahnen für Dacheindeckungen und Wände - Montage- und Befestigungshinweise für das Brandverhalten

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 254.

If this draft becomes a European Standard, 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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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## **European foreword**

This document (prEN 17873:2022) has been prepared by Technical Committee CEN/TC 254 "Flexible sheets for waterproofing", the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

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## Introduction

This document supports the existing product standards for factory made underlays for discontinuous roof coverings and walls by complementing the instructions for mounting and fixing for reaction to fire testing. The information given in this document comprises exposure to thermal attack, choice of substrates, consideration and orientation of joints and edges as well as product orientation and fixation of test specimen, to define unambiguously test conditions in the small-scale burner test and in the single burning item test.

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### 1 Scope

This document specifies instructions for mounting and fixing for reaction to fire testing of factory-made underlays for discontinuous roof coverings and walls and contains provisions for direct and extended application rules.

### 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 13238:2010, Reaction to fire tests for building products - Conditioning procedures and general rules for selection of substrates

EN 13501-1:2018, Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

EN 13823:2020, Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item

EN 13859-1:2010, Flexible sheets for waterproofing - Definitions and characteristics of underlays - Part 1: Underlays for discontinuous roofing

EN 13859-2:2010, Flexible sheets for waterproofing - Definitions and characteristics of underlays - Part 2: Underlays for walls

EN ISO 11925-2:2020, Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test (ISO 11925-2:2020)

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## **3** Terms and definitions<sup>d1db1e2c3/osist-pren-17873-2022</sup>

For the purposes of this document, the terms and definitions given in EN 13859-1:2010, EN 13859-2:2010, EN 13823:2020 and the following 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

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

#### 3.1

#### underlays

factory-made flexible sheets of plastics, bitumen, rubber or other suitable materials, which are used underneath roof coverings or behind external wall coverings with the purpose to function as a secondary water draining layer either installed free-hanging, installed with a ventilated air gap or installed supported by a substrate

Note 1 to entry: Examples of roof covering are tiles, slates, metal sheets, etc.

Note 2 to entry: Examples of wall covering are boards, tiles or battens that can be made of concrete, metal or wood.

#### 3.2

#### integrated seam

integrated adhesive (e.g. adhesive tape) positioned close to the edge of the underlays with the purpose to adhere the joints of the underlays when being installed

#### 3.3

#### front side of the underlays

side that is exposed to weathering whilst the roof or wall is open (e.g. in most cases the printed side)

#### 3.4

#### back side of the underlays

side that is opposite to the front side of the underlay

#### 3.5

#### substrate

product which is installed with a distance of < 80 mm beneath the back side of the underlay about which information is required

Note 1 to entry: Examples of substrates are roof decks made of wood and wood-based panels, insulation materials, etc.

#### 3.6

#### standard substrate

product which is representative of the substrate used in the practical application

#### 3.7

#### free hanging installation

underlay is installed with a distance between the back side and the substrate of  $\geq 80$  mm

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installation with a ventilated air-gap didble2c3/osist-pren-17873-2022

underlay is installed with a distance between the back side and the substrate of < 80 mm

#### 3.9

#### installation supported on a substrate

underlay is installed without a distance between the back side and the substrate, so that they are in direct contact

## 4 Principle

The underlays shall be tested and classified in accordance with EN 13501-1:2018, Table 1 respecting the test conditions laid down in Clause 5 of this document.

The classification for the product as placed on the market shall be issued based on testing without any non-integrated installation aids (e.g. external adhesive tapes, anchors, etc.).

Additional and optional reaction to fire tests of assemblies of underlays in combination with specific installation aids may be performed, but the results are given in the manufacturer's literature only. This information shall be kept distinct from the CE marking when labelling products.

NOTE In respect of assemblies of underlays in combination with specific installation means, it is understood that the manufacturer of the underlays cannot take responsibility for the quality of the installation, or the way the underlay is installed.

The application of this document is related to EN 13859-1:2010, 5.2.2 and EN 13859-2:2010, 5.2.2.

## 5 Instructions for mounting and fixing of test specimens

#### 5.1 General

This clause gives instructions for mounting and fixing for reaction to fire testing of underlays according to EN ISO 11925-2:2020 and EN 13823:2020.

#### **5.2 Product and installation parameters**

Table 1 gives the parameters that shall be taken into account when determining an underlay's reaction to fire performance.

Product/Installation parameter	EN 13823:2020 (class A2 – D)	EN ISO 11925-2:2020 (class B – E)		
Exposure to thermal attack	Х	Х		
Substrate	Х	X (for class B – D) X <sup>a</sup> (for class E)		
Joints <sup>b</sup> /edges	Х	—		
Product orientation	Х	Х		
Fixing of test specimen	TANDARD PRE	VIEW –		
a Only in case the application shall be limited to being supported on a specific substrate				

#### Table 1 — Installation parameters concerning reaction to fire tests

<sup>a</sup> Only in case the application shall be limited to being supported on a specific substrate.

<sup>b</sup> Joints include integrated seams.

#### 5.3 Mounting and fixing

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5.3.1 Ignitability test

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#### 5.3.1.1 General

The ignitability test shall be carried out in accordance with EN ISO 11925-2:2020.

#### 5.3.1.2 Exposure to thermal attack

When tested according to EN ISO 11925-2:2020, the roof underlays shall be tested under conditions of surface flame attack (surface exposure).

The flame attack shall be applied to the side that is specified by the manufacturer as the front side of the underlays.

In case of underlays with an integrated seam, the flame attack shall not be applied on any part of the integrated seam (adhesive tape or liner). Test specimens shall be taken from the plain area of the underlays.

#### 5.3.1.3 Substrate

When tested according to EN ISO 11925-2:2020 to obtain a classification of class E, the roof underlays, where no limitation in the installation is requested, shall be tested free hanging only. The obtained classification of Euro class E, shall than be applied to all free hanging installations, installations with a ventilated air gap and installations supported on a substrate.

When tested according to EN ISO 11925-2:2020 to obtain a classification of class E for an intended use of the roof underlay solely limited to being installed with a ventilated air gap or supported on a substrate, or to obtain a classification for class B, C or D the following shall be applied:

Reference substrates according to EN 13238:2010, Table 1 shall be used including the rules as listed in EN 13238:2010, section 5.3.

In case of substrates not represented by the reference substrates according to EN 13238:2010, Table 1 or to obtain a classification of class B, C or D for a free-hanging installation additional tests shall be applied according to the following:

The specific substrate (e.g. polyurethane, expanded polystyrene) shall be used. In case of a free-hanging installation to obtain a classification of class B, C or D, no substrate shall be used and the product shall be tested free-hanging.

#### **5.3.1.4 Product orientation**

When tested according to EN ISO 11925-2:2020, the products shall be tested in machine direction (MD) and cross-machine direction (CMD).

#### 5.3.2 SBI "Single Burning Item" test

#### 5.3.2.1 General

The SBI test shall be carried out in accordance with EN 13823:2020.

#### 5.3.2.2 Exposure to thermal attack

When tested according to EN 13823:2020 the flame attack shall be applied to the side that is specified by the manufacturer as the front side of the product.

#### 5.3.2.3 Substrate

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When tested according to EN 13823, it is compulsory to test the roof underlay installed supported on a substrate made of mineral wool according to EN 13238:2010, Table 1.2022

To obtain a classification for a roof underlay installed with a ventilated air gap or installed supported on a substrate not represented by mineral wool according to EN 13238:2010, Table 1, reference substrates according to EN 13238:2010, Table 1 shall be used including the rules as listed in EN 13238:2010, section 5.3.

In case of substrates not represented by the reference substrates according to EN 13238:2010, Table 1 or in case of a free-hanging installation additional tests shall be applied according to the following:

The specific substrate (e.g. polyurethane, expanded polystyrene) shall be used. In case of a free-hanging installation, no substrate shall be used and the product shall be tested free-hanging at a distance of 80 mm in front of a calcium silicate board according to EN 13238:2010, Table 1.

#### 5.3.2.4 Joints/Edges

When tested according to EN 13823:2020, the joints of the roof underlays shall be arranged according to Figure 1, representing a horizontal or vertical installation.

The classification for the product as delivered shall refer to the product tested according to the manufacturer installation guidelines.

In case of a product with an integrated adhesive tape the test shall be performed with the integrated adhesive tape used to seal the joint.