

# SLOVENSKI STANDARD

## SIST EN 508-2:2019

01-oktober-2019

Nadomešča:  
SIST EN 508-2:2008

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**Pločevina za pokrivanje streh in oblaganje sten - Specifikacija za samonosilne proizvode iz jeklene, aluminijeve pločevine ali pločevine iz nerjavnega jekla - 2. del: Aluminij**

Roofing and cladding products from metal sheet - Specification for self-supporting products of steel, aluminium or stainless steel sheet - Part 2: Aluminium

Dachdeckungs- und Wandbekleidungselemente aus Metallblech - Spezifikation für selbsttragende Bedachungselemente aus Stahlblech, Aluminiumblech oder nichtrostende Stahlblech - Teil 2: Aluminium

Produits de couverture et bardage en tôle métallique - Spécification pour les plaques de couverture en tôle d'acier, d'aluminium ou d'acier inoxydable - Partie 2 : Aluminium

**Ta slovenski standard je istoveten z: EN 508-2:2019**

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**ICS:**

77.150.10	Aluminijski izdelki	Aluminium products
91.060.20	Strehe	Roofs

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
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English Version

**Roofing and cladding products from metal sheet -  
Specification for self-supporting products of steel,  
aluminium or stainless steel sheet - Part 2: Aluminium**

Produits de couverture et bardage en tôle métallique -  
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Aluminium

Dachdeckungs- und Wandbekleidungselemente aus  
Metallblech - Spezifikation für selbsttragende  
Bedachungselemente aus Stahlblech, Aluminiumblech  
oder nichtrostende Stahlblech - Teil 2: Aluminium

This European Standard was approved by CEN on 26 May 2019.

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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## EN 508-2:2019 (E)

## European foreword

This document (EN 508-2:2019) has been prepared by Technical Committee CEN/TC 128 “Roof covering 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 February 2020, and conflicting national standards shall be withdrawn at the latest by February 2020.

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 508-2:2008.

EN 508 *Roofing and cladding products from metal sheet - Specification for self-supporting products of steel, aluminium or stainless steel sheet* consists of the following parts:

- Part 1: *Steel*;
- Part 2: *Aluminium*;
- Part 3: *Stainless steel*.

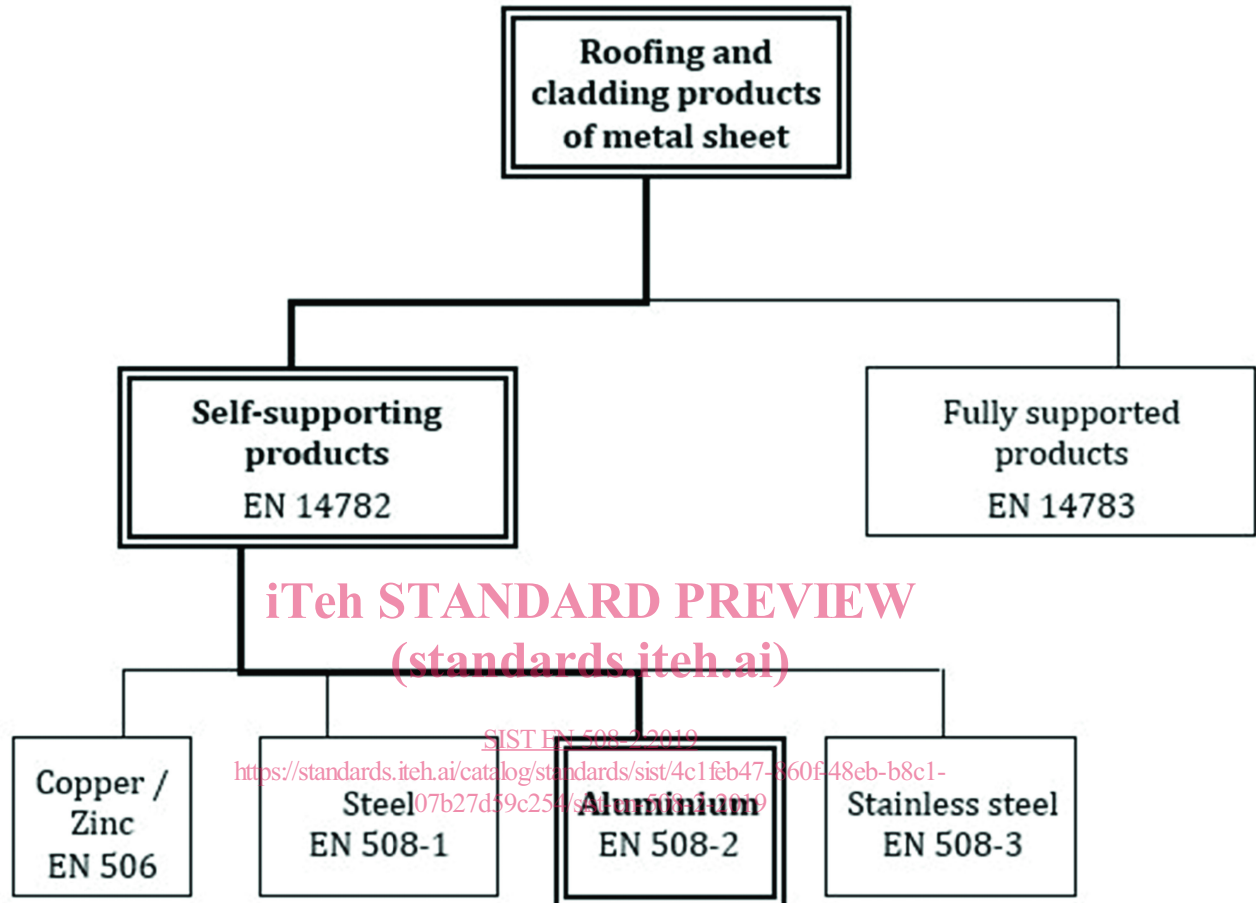
In comparison with EN 508-2:2008, the scope of the standard has been extended to cladding products. Reference has been added to anodised aluminium sheets as well as to the A1 EU-classification without further testing of aluminium products in accordance with Commission decision 2010/737/EC.

These changes or additions can be found in the following clauses and subclauses: Clause 1; Clause 2; 3.1.1; 4.2.1; 4.2.3; 4.3.1; 4.3.5; 4.3.5.2; 4.3.5.3; 5.3; Clause 6 and the Bibliography.

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, Turkey and the United Kingdom.

## Introduction

Figure 1 indicates the position of this standard in the CEN framework of standards concerning roofing and cladding products of metal sheet.



**Figure 1 — Framework of standards**

In this standard the performance of the product has been defined in terms of calculation and a number of type tests.

The performance of a roof constructed with these products depends not only on the properties of the product as required by this standard, but also on the design, construction and performance of the roof as a whole in relation to the environment and conditions of use.

## EN 508-2:2019 (E)

## 1 Scope

This part of EN 508 specifies requirements for self-supporting external profiled sheets for roof covering, wall cladding, lining and liner tray products for discontinuous laying made from aluminium sheet with or without surface treatment (additional organic coatings or anodising).

This document establishes general characteristics, definitions, classifications and labelling for the products, together with requirements for the materials from which the products can be manufactured. It is intended to be used either by manufacturers to ensure that their products comply with the requirements or by purchasers to verify that the products comply before they are made available on the market before being despatched from the factory. It specifies the requirements for products which enable them to meet all normal service conditions.

This document applies to all discontinuously laid self-supporting external profiled sheets for roof covering, wall cladding, lining and liner trays with the exception of tiles with a surface area less than 1 m<sup>2</sup> and produced by stamping. These profiled roof sheets are designed to keep wind, rain and snow out of the building, and to transfer any resultant loads and infrequent maintenance loads to the structure.

This document does not cover products for structural purposes, i.e. it does cover products used in structural class III (according to EN 1999-1-4), it does not cover products used in constructions of Structural Classes I and II (according to EN 1999-1-4) intended to contribute to the global or partial stability of the building structure by providing racking resistance or resistance of permanent static loads (excluding self-weight of the metal sheet).

No requirements for supporting construction, design of roof system and execution of connections and flashings are included.

## 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 485-4, *Aluminium and aluminium alloys — Sheet, strip and plate — Part 4: Tolerances on shape and dimensions for cold-rolled products*

EN 1396, *Aluminium and aluminium alloys — Coil coated sheet and strip for general applications — Specifications*

EN 14782, *Self-supporting metal sheet for roofing, external cladding and internal lining — Product specification and requirements*

EN ISO 7599, *Anodizing of aluminium and its alloys — Method for specifying decorative and protective anodic oxidation coatings on aluminium (ISO 7599)*

## 3 Terms and definitions, symbols and abbreviations

### 3.1 General

For the purposes of this document, the terms and definitions given in EN 485-1 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>



NOTE Wherever the term aluminium is used it is meant unalloyed or alloyed aluminium.

### 3.1.1

#### **self-supporting product**

product which will, by virtue of its material and shape, support all applied loadings (e.g. snow, wind, foot traffic, insulation, membrane), and transmit these loadings to spaced structural supports

## 3.2 Material definitions

### 3.2.1

#### **temper**

material conditions after a production stage, for example mechanical treatment and/or heat treatment, intended to give the material physical and/or metallurgical properties

### 3.2.2

#### **organic coated aluminium sheet**

painted, post coated, laminated or coil coated (continuously organic coated) aluminium on one or on both sides

### 3.2.3

#### **anodized aluminium sheet**

aluminium with an anodic coating, produced by an electrolytic oxidation process in which the surface of the aluminium is converted to a mainly oxide coating having protective, decorative or functional properties

## 3.3 Profile definitions

### 3.3.1

#### **trapezoidal profiled sheet**

self-supporting sheet which is designed to allow it to be side and end lapped, the crowns of which may be rounded and, in addition, the crowns, web and valley may be stiffened

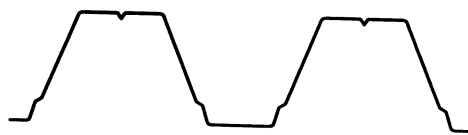
Note 1 to entry: See Figures 2, 3, 4 and 5.



Figure 2 — Part of typical trapezoidal profile



Figure 3 — Part of typical trapezoidal profile with rounded crowns



**Figure 4 — Part of typical trapezoidal profile with stiffened crown and web**



**Figure 5 — Part of typical trapezoidal profile with stiffened valley**

### 3.3.2

#### **sinusoidal profiled sheet**

self-supporting sheet which is designed to allow it to be side and end lapped, comprising a series of arc shaped crowns and valleys interconnected with tangential webs

Note 1 to entry: See Figure 6.

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**Figure 6 — Part of typical sinusoidal profiled sheet**

### 3.3.3

#### **standing seam and concealed fix sheet**

self-supporting sheet profiled in such a way that the fixings are hidden within the construction and are not exposed to the weather

Note 1 to entry: See Figures 7 and 8.

Note 2 to entry: The profile shape is designed to allow the formation of side laps on site.

Note 3 to entry: As these types of roof covering and cladding products are used in proprietary roofing and cladding systems, no structural requirements are given within this standard.

Note 4 to entry: These products are normally designed by testing.

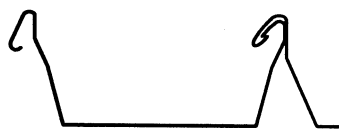
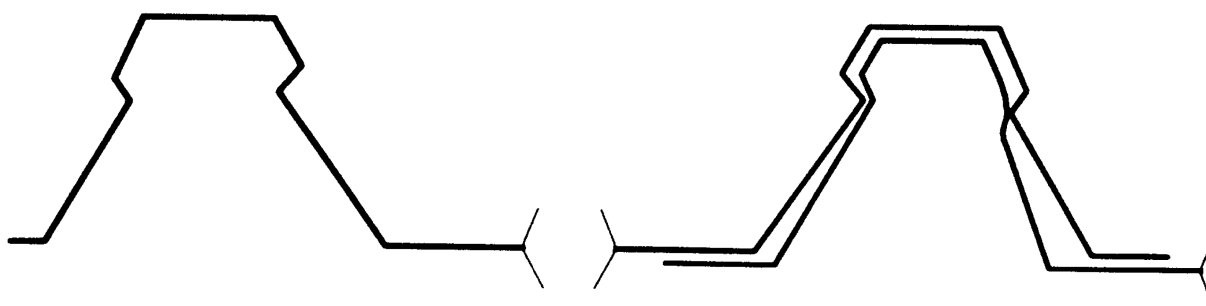


Figure 7 — Typical standing seam profile



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**Figure 8 — Typical concealed fix profile**  
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### 3.3.4

#### tile profile

part of typical tile profiled sheets that can allow the sheet to be side and/or end lapped

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Note 1 to entry: See Figure 9 (a) b) and c)).

Note 2 to entry: The tile profiles may include transverse steps.

Note 3 to entry: As these types of roof covering products are used in proprietary systems no structural requirements are given within this part of EN 508.

Note 4 to entry: These products are normally designed by testing.

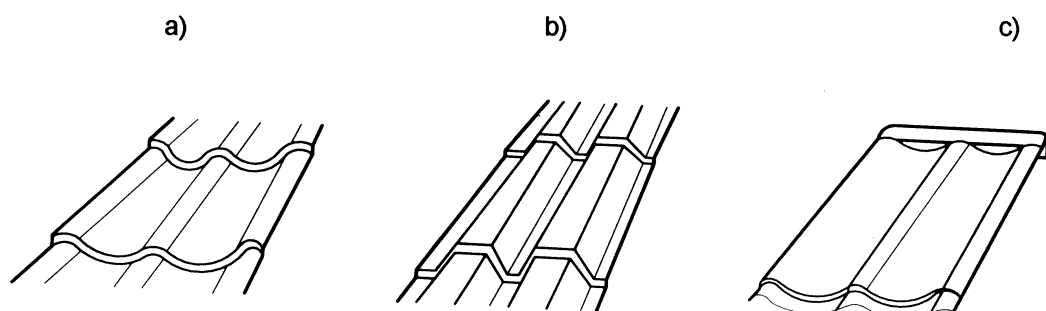
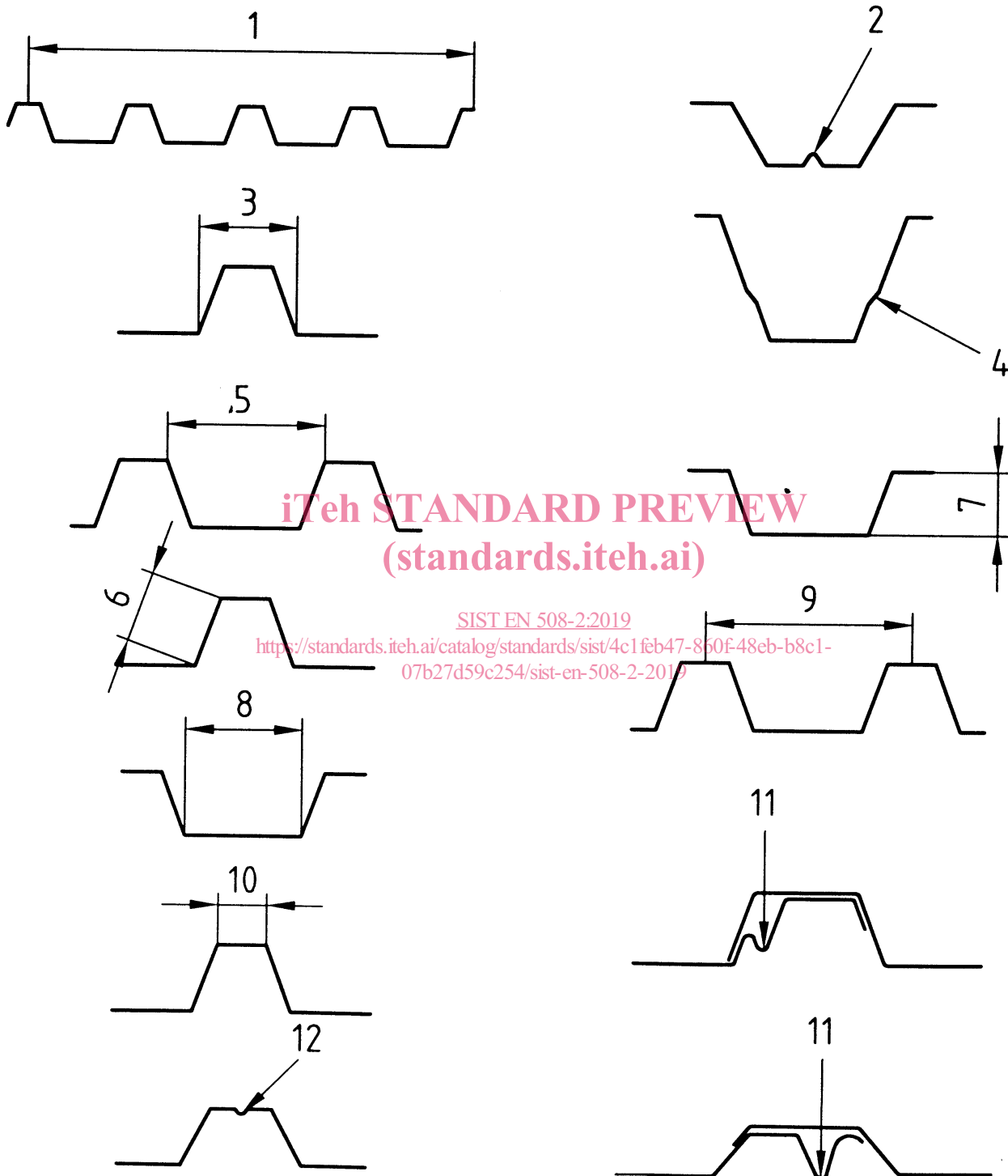


Figure 9 — Typical tile profiles

### 3.4 Product geometry

NOTE The names for various parts of typical trapezoidal profiled sheets are given in Figure 10, Figure 11 with additional definitions for sinusoidal profiles in Figure 12 and tile profiles in Figure 13.

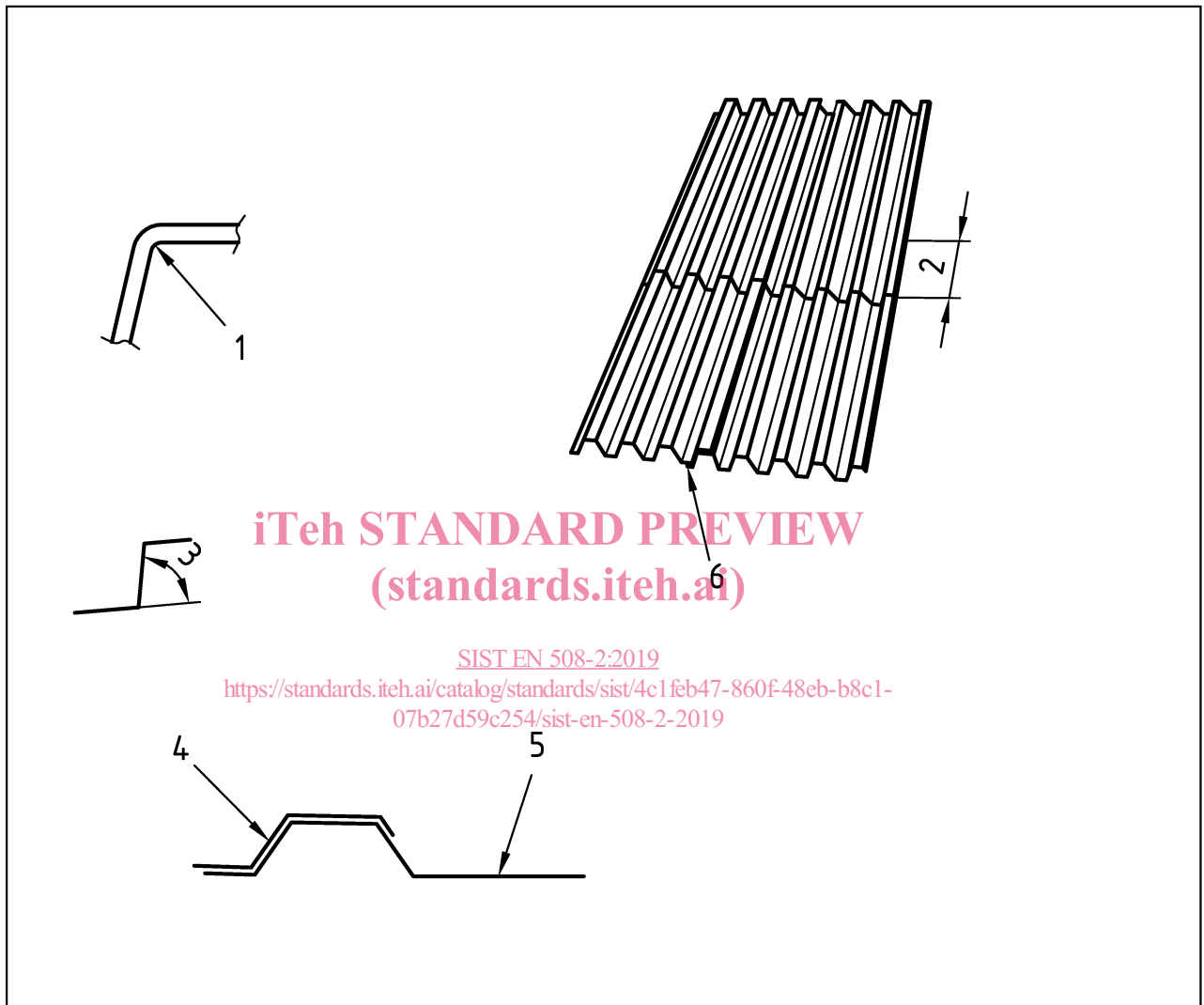


#### Key

- |                    |          |
|--------------------|----------|
| 1 cover width      | 7 depth  |
| 2 valley stiffener | 8 valley |
| 3 rib              | 9 pitch  |

- |                 |                    |
|-----------------|--------------------|
| 4 web stiffener | 10 crown           |
| 5 trough        | 11 drainage groove |
| 6 web           | 12 crown stiffener |

**Figure 10 — Definitions of the parts of typical trapezoidal profiled sheets**



**Key**

- 1 bend radius
- 2 end lap
- 3 web angle
- 4 overlap
- 5 underlap
- 6 side lap in principle the same on tiles

**Figure 11 — Definitions of the parts of typical trapezoidal profiled sheets**