

SLOVENSKI STANDARD

SIST EN 508-2:2008

01-december-2008

Nadomešča:
SIST EN 508-2:2002

Pločevina za pokrivanje streh - Specifikacije za samonosilne proizvode iz jeklene, aluminijeve pločevine ali pločevine iz nerjavnega jekla - 2. del: Aluminij

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

Dachdeckungsprodukte aus Metallblech - Spezifikation für selbsttragende Bedachungselemente aus Stahlblech, Aluminiumblech oder nichtrostendem Stahlblech - Teil 2: Aluminium

Produits de couverture 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 508-2:2008

ICS:

77.150.10	Aluminijski izdelki	Aluminium products
91.060.20	Strehe	Roofs

SIST EN 508-2:2008 **en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 508-2:2008

<https://standards.iteh.ai/catalog/standards/sist/32ad2725-a70e-405f-af01-d794ec5482d4/sist-en-508-2-2008>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 508-2

July 2008

ICS 91.060.20

Supersedes EN 508-2:2000

English Version

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

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

Dachdeckungsprodukte aus Metallblech - Spezifikation für
selbsttragende Bedachungselemente aus Stahlblech,
Aluminiumblech oder nichtrostendem Stahlblech - Teil 2:
Aluminium

This European Standard was approved by CEN on 30 May 2008.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword.....	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions, symbols and abbreviations	6
3.1 General.....	6
3.2 Material definitions	6
3.3 Profile definitions.....	7
3.4 Product geometry	9
3.5 Symbols and abbreviations	12
4 Requirements	13
4.1 General.....	13
4.2 Materials	13
4.2.1 Aluminium	13
4.2.2 Organic coatings.....	14
4.3 Products	15
4.3.1 Mechanical resistance.....	15
4.3.2 Calculation and tests of mechanical resistance.....	15
4.3.3 Dimensions.....	15
4.3.4 Dimensional tolerances for the profiled sheet	16
4.3.5 Safety in case of fire.....	16
5 Test methods.....	16
5.1 Material properties.....	16
5.2 Surface properties	16
5.3 Structural properties	16
6 Designation	16
7 Marking, labelling and packaging	17
7.1 Marking and labelling.....	17
7.2 Packaging and special ordering conditions	17
7.3 Transport, storage and handling.....	17
Annex A (normative) Dimensional tolerances	18
A.1 Tolerances for trapezoidal sheets.....	18
A.1.1 General.....	18
A.1.2 Depth of profile	18
A.1.3 Depth of stiffeners	19
A.1.4 Pitch	19
A.1.5 Widths of crown and valley	20
A.1.6 Cover width	20
A.1.7 Radius of bends	21
A.1.8 Deviation from straightness	22
A.1.9 Deviation from squareness.....	23
A.1.10 Length	23
A.1.11 Deviation of side lap.....	24
A.1.12 Curve radius and angles	24
A.2 Tolerances for sinusoidal profiles	25
A.3 Tolerances on tiles	25
A.3.1 General.....	25
A.3.2 Depth of tile	26
A.3.3 Web angular displacement (Figure A.12)	27

A.3.4	Pitch	27
A.3.5	Width of crown and valley (Figure A.14)	27
A.3.6	Cover width	28
A.3.7	Radius of bends	28
A.3.8	Deviation from straightness	29
A.3.9	Deviation from squareness	29
A.3.10	Length	30
A.3.11	Contraction or bulging	30
A.4	Methods for measuring profiles	31
A.4.1	General	31
A.4.2	Depth of profile	31
A.4.3	Depth of stiffeners	31
A.4.4	Pitch	31
A.4.5	Width of crown and valley	32
A.4.6	Cover width	33
A.4.7	Radius of bends	33
A.4.8	Straightness	33
A.4.9	Squareness	33
A.4.10	Length	33
A.4.11	Side laps	33
A.4.12	Side lap ripple	33
Annex B (informative)	Test methods for concentrated load	35
Bibliography	36

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 508-2:2008](https://standards.iteh.ai/catalog/standards/sist/32ad2725-a70e-405f-af01-d794ec5482d4/sist-en-508-2-2008)

<https://standards.iteh.ai/catalog/standards/sist/32ad2725-a70e-405f-af01-d794ec5482d4/sist-en-508-2-2008>

EN 508-2:2008 (E)

Foreword

This document (EN 508-2:2008) 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 January 2009, and conflicting national standards shall be withdrawn at the latest by January 2009.

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

This document supersedes EN 508-2:2000.

EN 508 *Roofing 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*.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

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

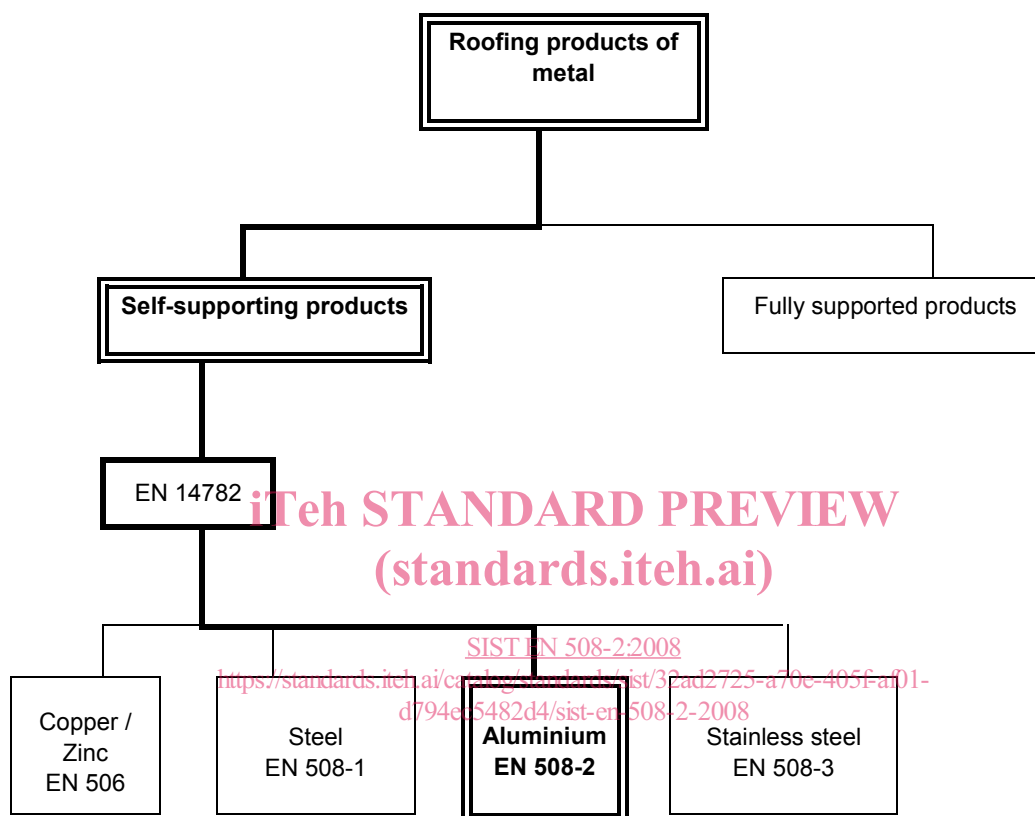


Figure 1 — Framework of standards

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 508-2:2008 (E)**1 Scope**

This part of EN 508 specifies requirements for self-supporting roofing products for discontinuous laying made from aluminium sheet with or without additional organic coatings.

The standard 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 despatched from the factory. It specifies the requirements for products which enable them to meet all normal service conditions.

The standard applies to all discontinuously laid self-supporting external profiled sheets for roofing. 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.

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

2 Normative references

The following referenced documents are indispensable for the application 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.*

<https://standards.iteh.ai/catalog/standards/sist/32ad2725-a70e-405f-af01-d794ec5482d4/sist-en-508-2-2008>

3 Terms and definitions, symbols and abbreviations

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

3.1 General**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), and transmit these loadings to spaced structural supports

3.2 Material definitions**3.2.1****aluminium**

unalloyed aluminium or aluminium

3.2.2**unalloyed aluminium**

metal with a minimum content of 99,0% by mass of aluminium and with content by mass of any other element within the following limits :

— a total content of iron and silicon not greater than 1,0% ;

- a content of any other element not greater than 0,10% except for copper which can have a content of up to 0,20% provided that neither the chromium nor the manganese content exceeds 0,05%.

3.2.3

aluminium alloy

alloy in which aluminium predominates by mass overreach of the other elements and which is not covered by the definition of unalloyed aluminium

3.2.4

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

3.2.5

organic coated aluminium sheet

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

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 See Figures 2, 3, 4 and 5.



Figure 2 — Part of typical trapezoidal profile



Figure 3 — Part of typical trapezoidal profile with rounded crowns

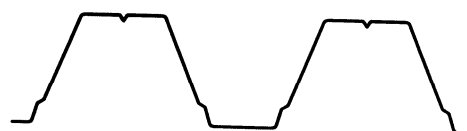


Figure 4 — Part of typical trapezoidal profile with stiffened crown and web



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 See Figure 6.



SIST EN 508-2:2008

<https://standards.iteh.ai/catalog/standards/sist/32ad2725-a70e-405f-af01-d7542c5482d4/sist-en-508-2-2008>

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 See Figures 7 and 8.

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

NOTE 3 As these types of roof covering products are used in proprietary roofing systems, no structural requirements are given within this standard.

NOTE 4 These products are normally designed by testing.

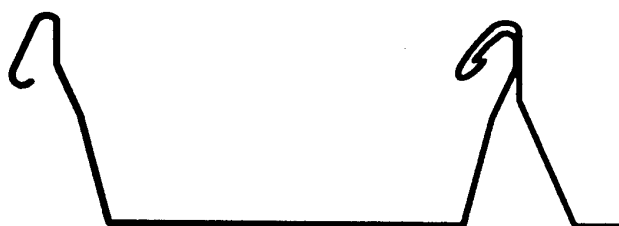


Figure 7 — Typical standing seam profile

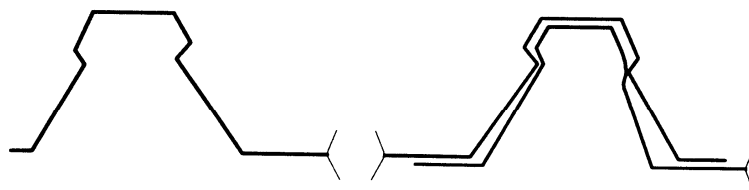


Figure 8 — Typical concealed fix profile

3.3.4

tile profiles

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

NOTE 1 See figures 9a, 9b and 9c.

NOTE 2 The tile profiles may include transverse steps.

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

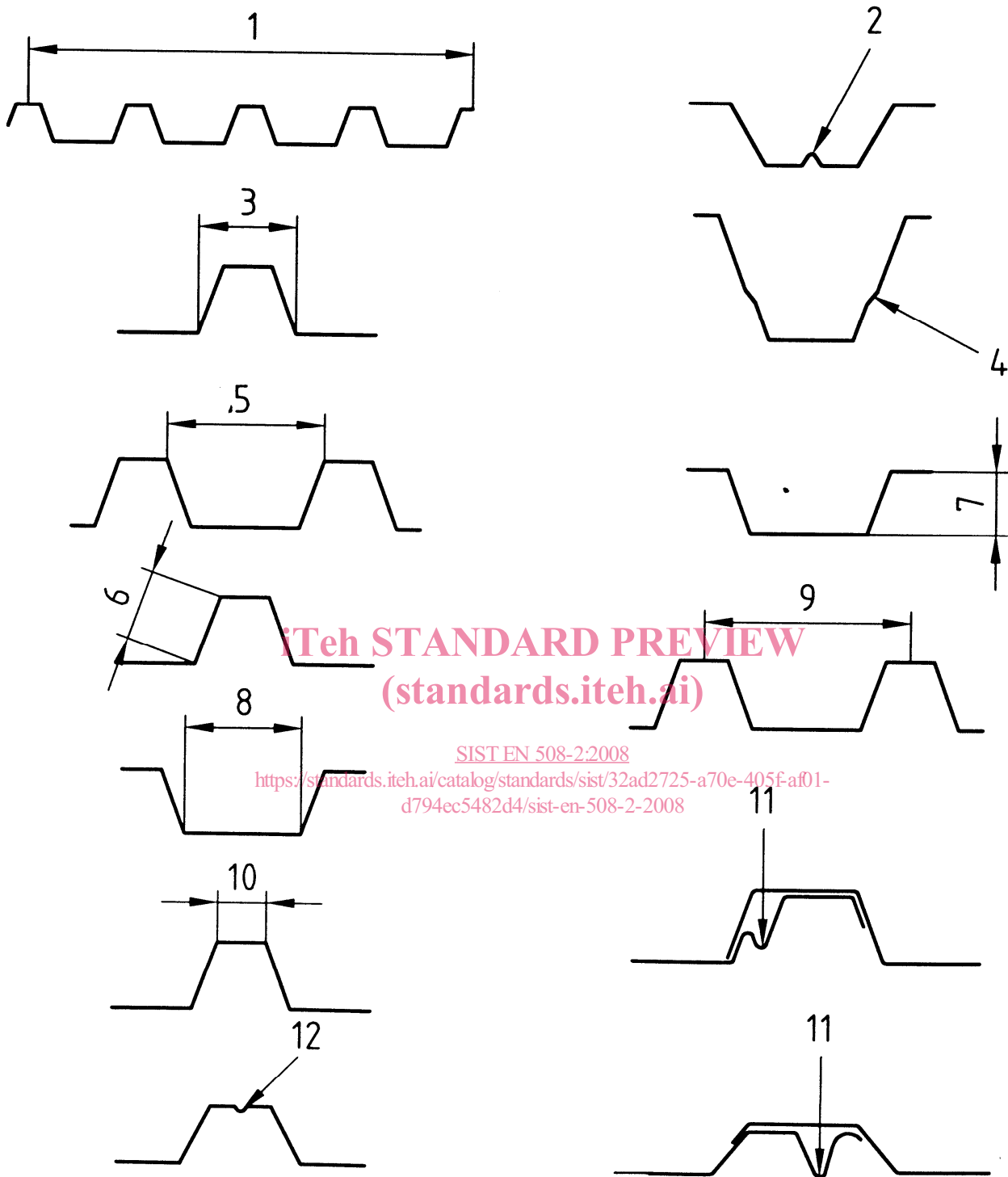
NOTE 4 These products are normally designed by testing.



Figure 9 — Typical tile profiles

3.4 Product geometry

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



STANDARD PREVIEW
(standards.itech.ai)

SIST EN 508-2:2008

<https://standards.itech.ai/catalog/standards/sist/32ad2725-a70e-405f-af01-d794ec5482d4/sist-en-508-2-2008>

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

a) Definitions of the parts of typical trapezoidal profiled sheets