



SLOVENSKI STANDARD

SIST EN 508-3:2008

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Nadomešča:

SIST EN 508-3:2002

Pločevina za pokrivanje streh - Specifikacije za samonosilne proizvode iz jeklene, aluminijeve pločevine ali pločevine iz nerjavnega jekla - 3. del: Nerjavno jeklo

Roofing products from metal sheet - Specification for self-supporting products of steel, aluminium or stainless steel sheet - Part 3: Stainless steel

Dachdeckungsprodukte aus Metallblech - Festlegungen für selbsttragende Bedachungselemente aus Stahlblech, Aluminiumblech oder nichtrostendem Stahlblech - Teil 3: Nichtrostendes Stahlblech

Produits de couverture en tôle métallique - Spécification pour les plaques de couverture en tôle d'acier, d'aluminium ou d'acier inoxydable - Partie 3 : Acier inoxydable

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ICS:

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91.060.20	Strehe	Roofs

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EUROPEAN STANDARD
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Roofing products from metal sheet - Specification for self-supporting products of steel, aluminium or stainless steel sheet -
Part 3: Stainless steel

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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EN 508-3:2008 (E)**Foreword**

This document (EN 508-3:2008) 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of an identical text or by endorsement, at the latest by January 2009, and conflicting national standards shall be withdrawn at the latest by January 2009.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 508-3:2000.

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.*

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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.

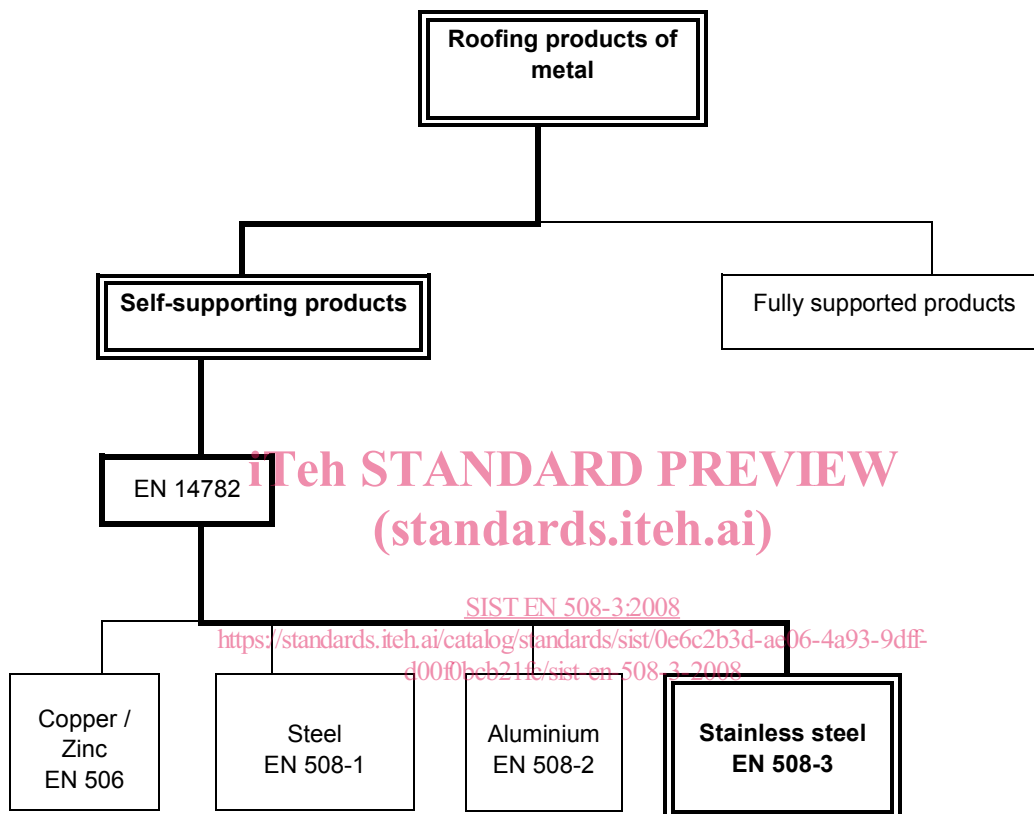


Figure 1 — Framework of standards

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 508-3:2008 (E)**1 Scope**

This Part of EN 508 specifies requirements for self-supporting roofing products for discontinuous laying made from stainless steel sheet with or without additional metallic and/or 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 with the exception of tiles with a surface area less than 1 m² 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.

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 10088-1, *Stainless steels - Part 1: List of stainless steels*

EN 10088-2, *Stainless steels - Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes*

EN 10202, *Cold reduced tinmill products – Electrolytic tinplate and electrolytic chromium/chromium oxide coated steel*

EN ISO 9445, *Continuously cold-rolled stainless steel narrow strip, wide strip, plate/sheet and cut lengths - Tolerances on dimensions and form (ISO 9445:2002)*

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 Materials**3.2.1****stainless steel**

steel sheets with at least a content of 10,5 % chromium and max 1,2 % carbon

NOTE For roofing products the stainless steel grades are:

- ferritic;
- austenitic with or without molybdenum;
- austenitic ferritic (duplex); and
- higher alloyed grades.

3.2.2

terne coated stainless steel

stainless steel continuously hot dip coated with a lead-tin alloy

3.2.3

tin coated stainless steel

stainless steel continuously coated with tin by electrodeposition

3.2.4

organic coated stainless steel

stainless steel, terne coated stainless steel or tin coated stainless steel which is continuously (factory-)painted by roller or spray process

NOTE EN 10169-1 refers to this type of coated steel.

3.3 Profiles

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, webs and valleys may be stiffened

NOTE See Figures 2 to 5. <https://standards.iteh.ai/catalog/standards/sist/0e6c2b3d-ac06-4a93-9dff-d00f0bcb21fc/sist-en-508-3-2008>



Figure 2 — Part of typical trapezoidal profile



Figure 3 — Part of typical trapezoidal profile with rounded crowns

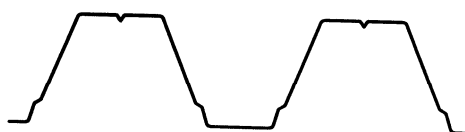


Figure 4 — Part of typical trapezoidal profile with stiffened crown and web



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.



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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 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 the present standard.

NOTE 4 These products are normally designed by testing.

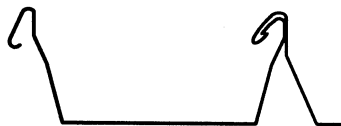


Figure 7 — Typical standing seam profile

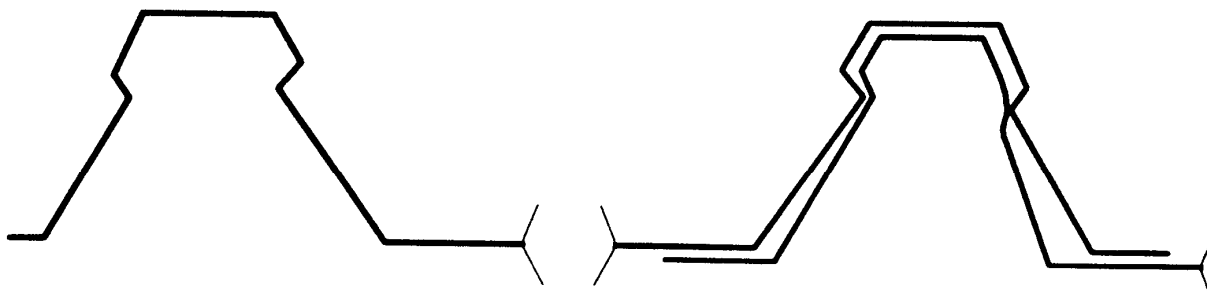


Figure 8 — Typical concealed fix profile

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 standard.

NOTE 4 These products are normally designed by testing.

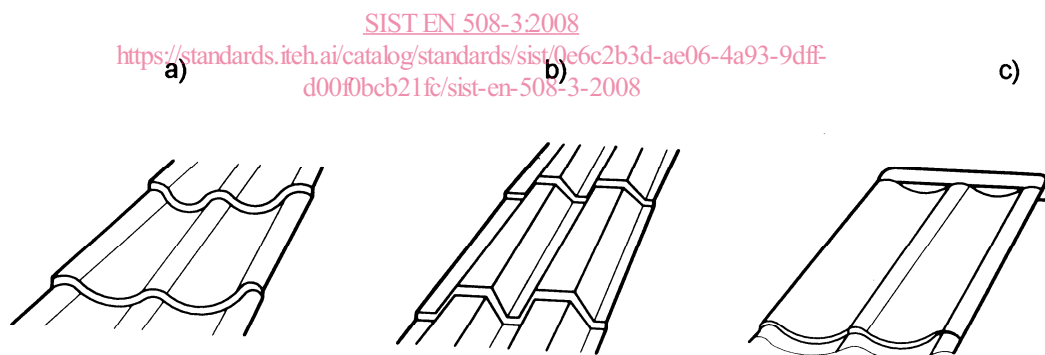
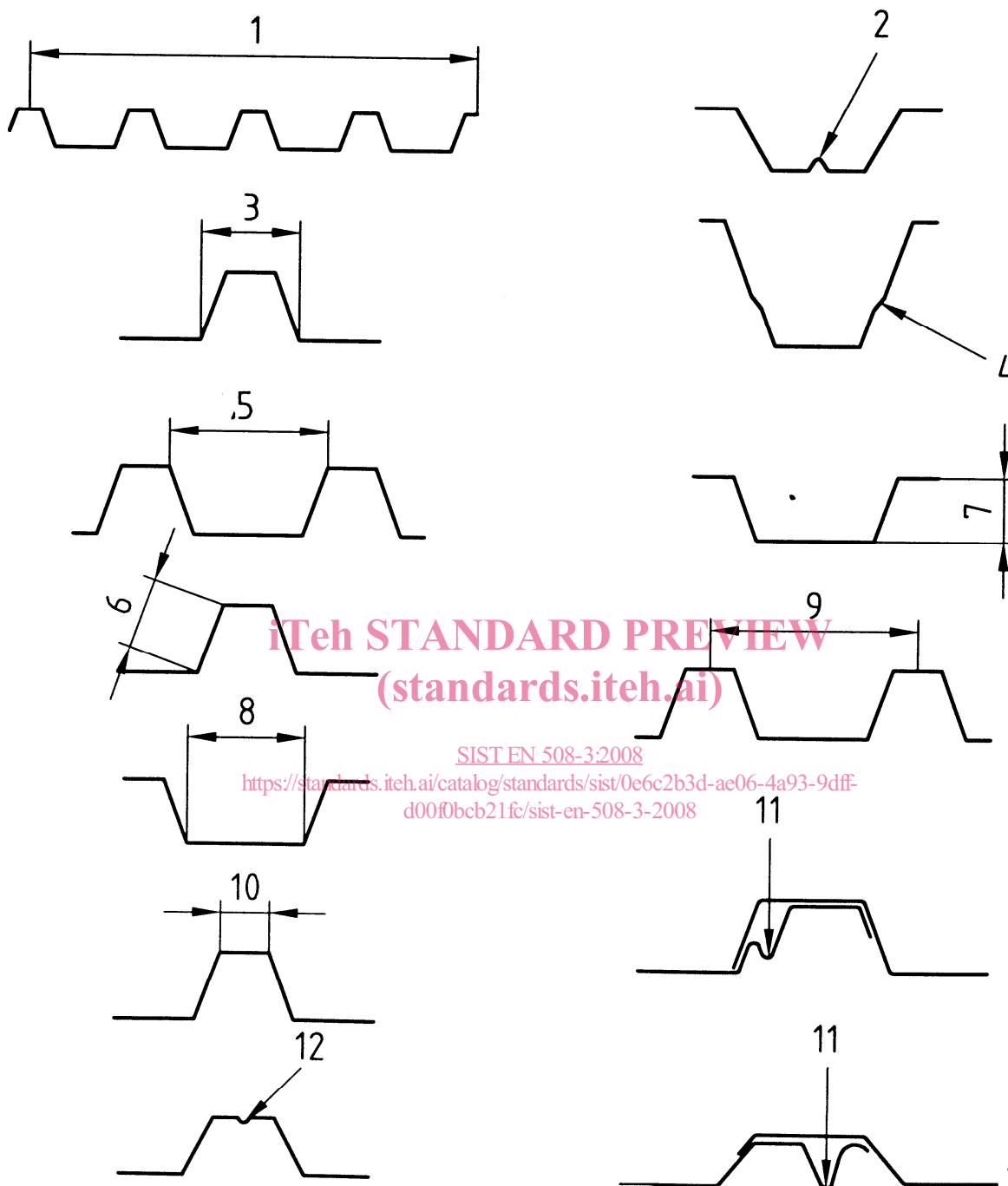


Figure 9 — Typical tile profiles

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.



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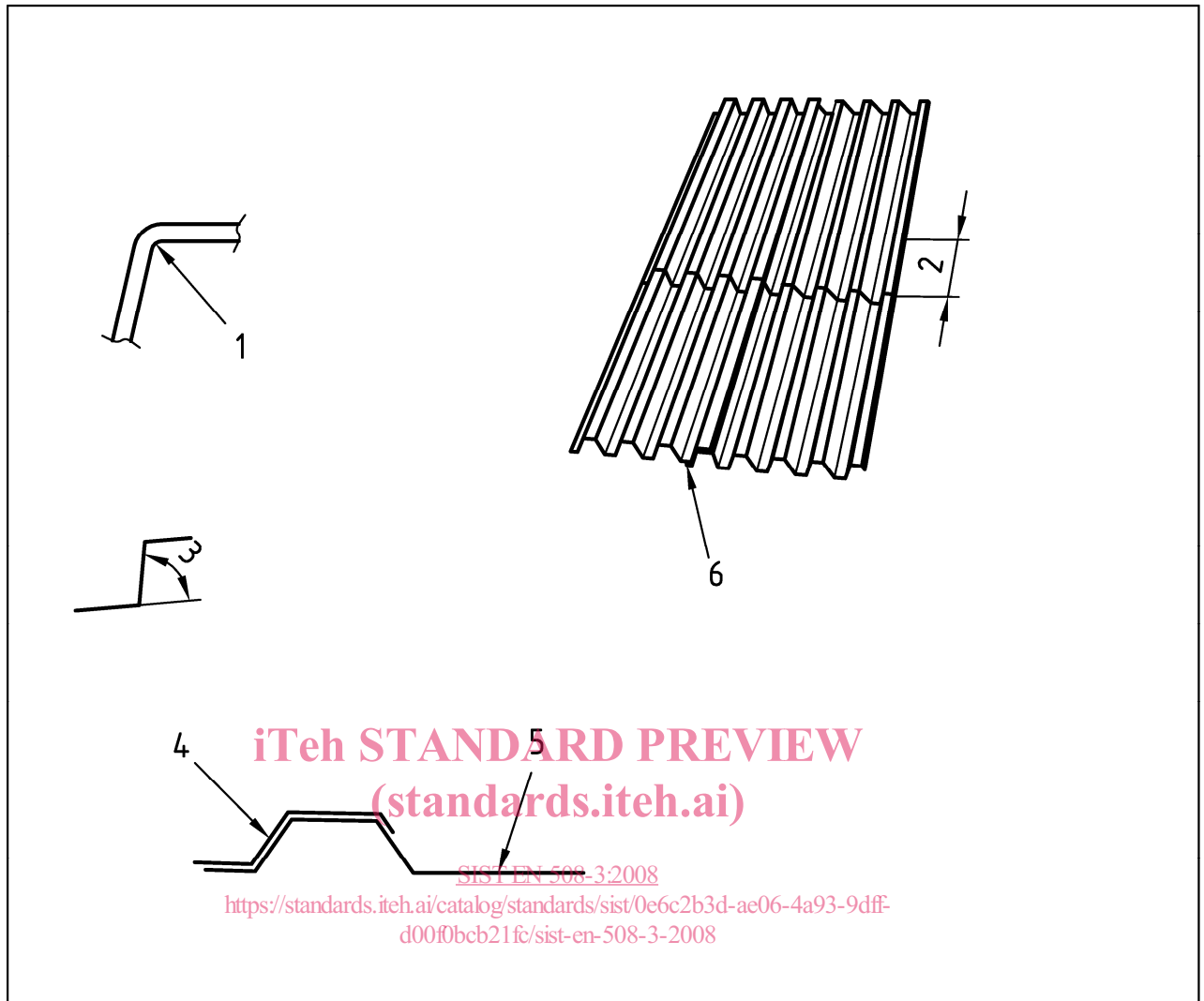
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Key

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

**Key**

- | | | | |
|---|-------------|---|---|
| 1 | Bend radius | 4 | Overlap |
| 2 | End lap | 5 | Underlap |
| 3 | Web angle | 6 | Side lap in principle the same on tiles |

b) Definitions of the parts of typical trapezoidal profiled sheets**Figure 10: Definitions of the parts of typical profiled sheets**