



SLOVENSKI STANDARD

SIST EN 502:2013

01-maj-2013

Nadomešča:
SIST EN 502:2000

Pločevina za prekrivanje streh - Specifikacija za povsem podprte strešne plošče iz pločevine iz nerjavnega jekla

Roofing products from metal sheet - Specification for fully supported roofing products of stainless steel sheet

Dachdeckungsprodukte aus Metallblech - Festlegungen für vollflächig unterstützte Bedachungselemente aus nichtrostendem Stahlblech

Produits de couverture en tôle métallique - Spécification pour les produits de couverture en feuille d'acier inoxydable totalement supportés

Ta slovenski standard je istoveten z: **EN 502:2013**

ICS:

77.140.50	Ploščati jekleni izdelki in polizdelki	Flat steel products and semi-products
91.060.20	Strehe	Roofs

SIST EN 502:2013 en,de

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EUROPEAN STANDARD

EN 502

NORME EUROPÉENNE

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March 2013

ICS 91.060.20

Supersedes EN 502:1999

English Version

Roofing products from metal sheet - Specification for fully supported roofing products of stainless steel sheet

Produits de couverture en tôle métallique - Spécification pour les produits de couverture en feuille d'acier inoxydable totalement supportés

Dachdeckungsprodukte aus Metallblech - Spezifikation für vollflächig unterstützte Dachdeckungsprodukte aus nichtrostendem Stahlblech

This European Standard was approved by CEN on 5 February 2013.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN 502:2013) 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 September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.

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 502:1999.

In comparison to the previous edition, the following sections have been changed: Table 1, Annex A and Annex B.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

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

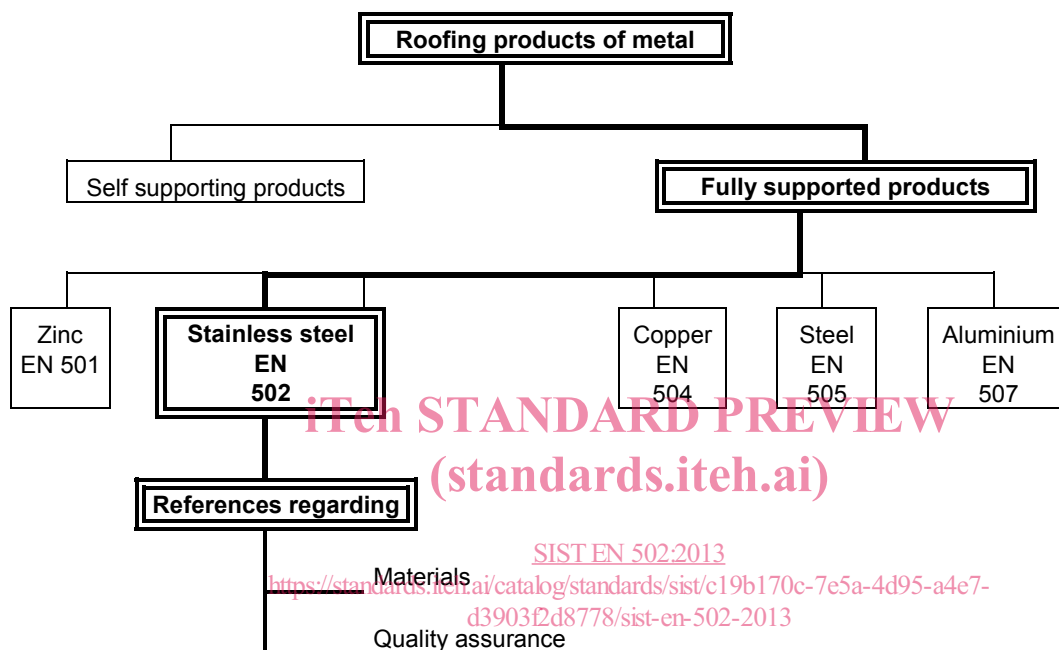


Figure 1 — Framework of standards

In this European Standard, the performance of the product has been defined in terms of a number of type tests.

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

1 Scope

This European Standard specifies requirements for roofing products used for assembly into coverings for pitched roofs, made from stainless steel, terne coated, tin coated or organic coated stainless steel sheet.

The European Standard establishes general characteristics, definitions 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. Products can be prefabricated or semifinished products as well as strip, coil and sheet for on-site-formed applications (e.g. standing seam roofs, roll cap).

The European Standard applies to all discontinuously laid and fully supported roofing products made of stainless steel sheet. No requirements for application (e.g. methods of fixing, supporting construction, design of roof system, execution of connections and flashings) are included.

NOTE The standard deals partly with flat products, partly with formed (prefabricated) products. Requirements for preformed self-supporting roofing products are given in EN 508-3.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10079:2007, *Definition of steel products* (standards.iteh.ai)

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

EN 10088-4, *Stainless steels — Part 4: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for construction purposes*

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

EN 10204, *Metallic products — Types of inspection documents*

EN ISO 7438, *Metallic materials — Bend test (ISO 7438)*

EN ISO 9445-2, *Continuously cold-rolled stainless steel — Tolerances on dimensions and form — Part 2: Wide strip and plate/sheet (ISO 9445-2)*

3 Terms, definitions, symbols and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 10079:2007 and the following apply.

3.1.1

stainless steel

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

Note 1 to entry: For roofing products the stainless steels grades are:

— ferritic,

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

3.1.2**terne coated stainless steel**

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

3.1.3**tin coated stainless steel**

stainless steel continuously coated with tin by electrodeposition

3.1.4**organic coated stainless steel**

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

Note 1 to entry: EN 10169 refers to this type of coated steel.

3.1.5**fully supported**

installation conditions such, that the bottom flat portions of the product are supported by a continuous construction

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3.2 Symbols and abbreviations

The symbols and abbreviations which shall be used for the designation of the steel grades and where applicable of coatings are listed in the respective material standards mentioned in Clause 2.

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4 Requirements**4.1 General**

The product shall be manufactured from materials complying with 4.2.

The supplier of the materials is responsible for carrying out the tests necessary to verify that the materials supplied to the manufacturer comply with the requirements and should provide appropriate inspection documents (according to EN 10204) on request.

NOTE The symbols and abbreviations that are used to designate the steel grade, the type and mass of the metallic coating are those of the standards referred to in EN 10027-1.

A permanent quality control system shall be adopted by the manufacturer.¹⁾

¹⁾ For example, a Quality Management System based on EN ISO 9000.

4.2 Materials

4.2.1 Grades

The grades of stainless steel shall be selected depending on the corrosion conditions of the local environment, durability requirements and aesthetic considerations.

NOTE The most commonly used grades are listed in Table 1.

Table 1 — Grades

Steel grade	Steel designation	
	Steel name	Steel number
Ferritic with organic coating	X6Cr13	1.4000
Ferritic with or without organic coating	X6Cr17	1.4016
	X6CrMo17-1	1.4113
	X3CrTi17	1.4510
	X2CrTiNb18	1.4509
	X6CrMoNb17-1	1.4526
Austenitic with or without organic coating	X2CrMoTi18-2	1.4521
	X5CrNi18-10	1.4301
Austenitic/Molybdenum with or without organic coating	X2CrNi18-9	1.4307
	X5CrNiMo17-12-2	1.4401

4.2.2 Chemical composition

The chemical compositions of stainless steel shall be in accordance with EN 10088-4.

4.2.3 Physical properties

The physical properties for stainless steel shall be in accordance with EN 10088-1.

NOTE Some physical properties are given, for information, in Annex A.

4.2.4 Surface finishes of stainless steel

All normal stainless steel finishes can be used including bright finish, 2B in accordance with EN 10088-4, dull finish, 2D in accordance with EN 10088-4 or other low reflective finishes.

4.2.5 Hot-dip terne coated stainless steel

4.2.5.1 Coating

For the coating properties, one should refer to the existing national standards or to an agreement between the parties.

The minimum tin content of the alloy shall be 8 % by mass.