



SLOVENSKI STANDARD

SIST EN 507:2000

01-september-2000

D`c Yj]bUnUdfY_f]j Ub`Y'glfY`!'GdYWZ_UW`Y'nUdcj gYa `dcXdfH`glfYybY'd`cy Y]n
Ui a]b]Yj Yd`c Yj]bY

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

Dachdeckungsprodukte aus Metallblech - Festlegungen für vollflächig unterstützte Bedachungselemente aus Aluminiumblech

Produits de couverture en tôle métallique - Spécification pour les produits de couverture en tôle d'aluminium totalement supportés

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Ta slovenski standard je istoveten z: EN 507:1999

ICS:

77.150.10	Aluminijski izdelki	Aluminium products
91.060.20	Strehe	Roofs

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en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 507

November 1999

ICS 91.060.20

English version

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

Produits de couverture en tôle métallique - Spécification
pour les produits de couverture en tôle d'aluminium
totalement supportés

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vollflächig unterstützte Bedachungselemente aus
Aluminiumblech

This European Standard was approved by CEN on 16 September 1999.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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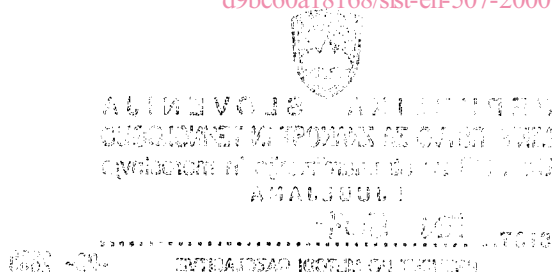


EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard 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 IBN.

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 May 2000, and conflicting national standards shall be withdrawn at the latest by May 2000.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Annex A is informative.

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Introduction

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

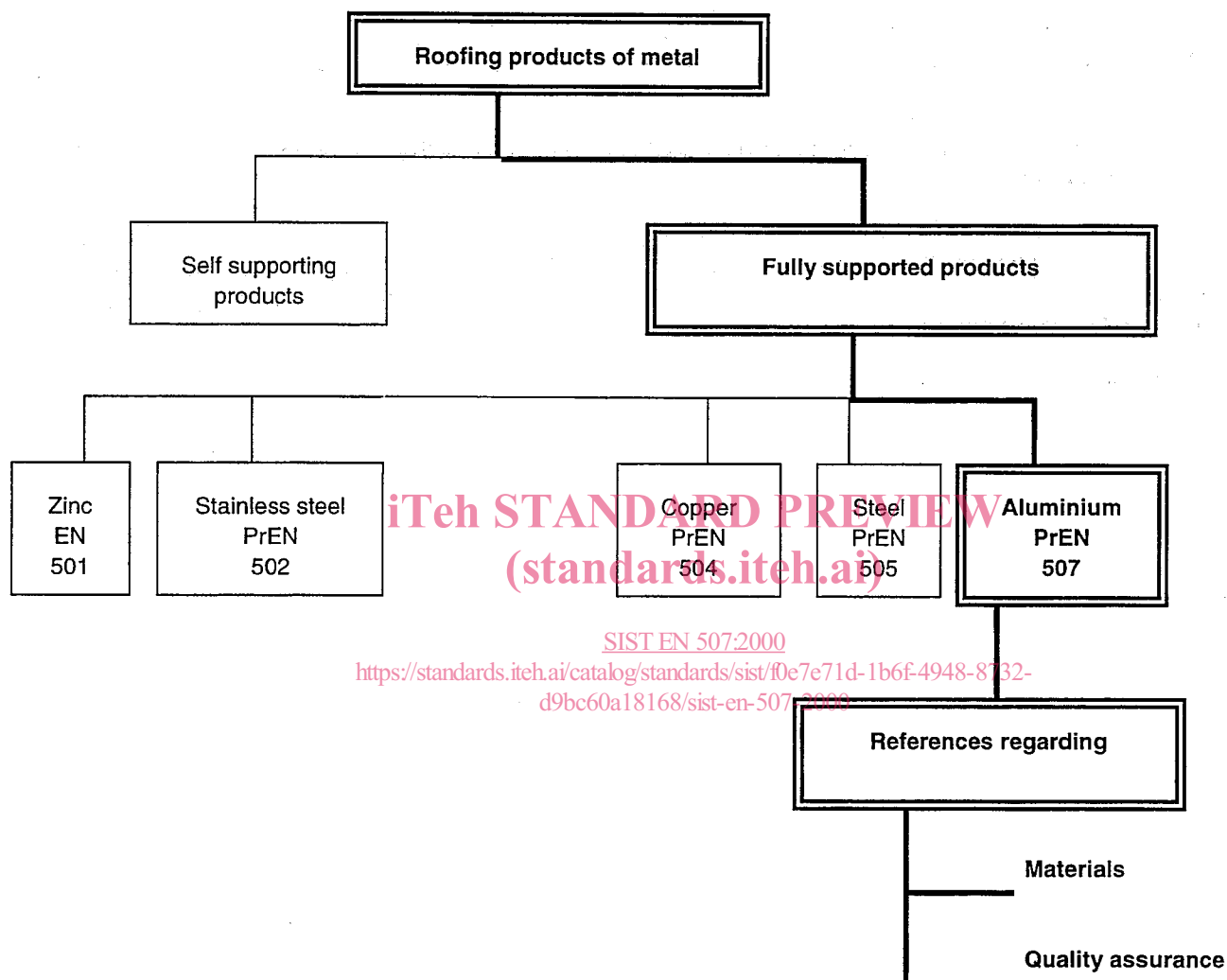


Figure 1 - Framework of standards

In this 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 as a whole in relation to the environment and conditions of use.

3.1.4

organic coated aluminium

painted, post coated, laminated or coil coated aluminium on one or on both sides

3.2 Symbols and abbreviations

EN AW	Symbols for aluminium sheets identical to the alloy symbols given in table 1
H	The aluminium temper symbol
AY	Indicating acrylic paint coating
SP	Indicating polyester paint coating
SP-SI	Indicating silicone-modified polyester paint coating
PVDF	Indicating polyvinylidene fluoride paint coating
PVF(F)	Indicating polyvinyl fluoride film coating
PMD	Indicating polyamid coated
AK	Indicating alkyd paint coating

4 Requirements

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4.1 General

The product shall be manufactured from materials complying with 4.2.

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NOTE 1 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 2 The symbols and abbreviations to be used to designate the aluminium alloys, the type and thickness of the organic coating are those of the standards referred to in clause 2.

A permanent quality control system shall be adopted by the manufacturer¹⁾

¹⁾ e.g. quality management system based on the relevant standard of the EN ISO 9000 series (see EN ISO 9000-1), or otherwise.

1 Scope

This European Standard specifies requirements for roofing products used for assembly into coverings for pitched roofs, made from aluminium sheet with or without additional organic coatings.

The standard establishes general characteristics, definitions and labelling of 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).

The standard applies to all discontinuously laid and fully supported roofing products made of aluminium sheets. No requirements for supporting construction, design of roof system and execution of connections and flashings are included.

NOTE The standard deals partly with flat products, partly with preformed (prefabricated) products. Requirements for preformed self-supporting products are given in prEN 508-2.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 485-1, *Aluminium and aluminium alloys - Sheet, strip and plate - Part 1 : Technical conditions for inspection and delivery.*

EN 485-2, *Aluminium and aluminium alloys - Sheet, strip and plate - Part 2 : Mechanical properties.*

EN 485-4, *Aluminium and aluminium alloys - Sheet, strip and plate - Part 4 : Tolerances on space and dimensions for cold rolled products.*

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

EN 10204, *Metallic products - Types of inspection documents.*

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of this standard, the following definitions apply in addition to the definitions in EN 485-1.

3.1.1

fully supported

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

3.1.2

aluminium

an alloy, consisting of the metal aluminium and other alloying metals

NOTE The alloys are defined by the content of the alloying element.

3.1.3

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

4.2 Materials

4.2.1 Aluminium

Table 1 lists aluminium alloys that are suitable without further proof provided their properties conform to the values given in the respective material standards (EN 485 or EN 1396).

Table 1 - Alloys of aluminium

Numerical designation	Designation based on chemical symbol
EN AW-1050 A	EN AW-Al 99,5
EN AW-1200	EN AW-Al 99,0 ¹⁾
EN AW-3003	EN AW-Al Mn1Cu
EN AW-3004	EN AW-Al Mn1Mg1
EN AW-3005	EN AW-Al Mn1Mg0,5
EN AW-3103	EN AW-Al Mn1
EN AW-3105	EN AW-Al Mn0,5Mg0,5
EN AW-4015	EN AW-Al Si2Mn ²⁾
EN AW-4016	EN AW-Al Si2MnZn ²⁾³⁾
EN AW-4017	EN AW-Al Si1MnCu ²⁾³⁾
EN AW-8011 A	EN AW-Al FeSi(A) ¹⁾
1) Only with organic coatings. 2) Alloys not included in EN 1396. 3) Alloys not included in EN 485-2. SIST EN 507:2000 https://standards.iteh.ai/catalog/standards/sist/40e7e71d-1b6f-4948-8732-	

Alloy and temper shall be chosen to give corrosion resistance, strength and formability. Specification of alloy and temper shall be agreed at the time of ordering.

4.2.2 Organic coatings

The main organic coatings suitable for application to aluminium substrates within the scope of this standard are given in table 2.

Table 2 - Factory applied organic coatings

Type of coating		Designation	Remarks
Factory applied coatings	Acrylic	AY	With proper primers
	Polyester	SP	
	Silicone-modified polyester	SP-SI	
	Polyvinylidene fluoride	PVDF	Only for post-coating
	Polyamide	PMD	
	Alkyd	AK	
Factory applied laminated film	Polyvinyl fluoride	PVF(F)	

NOTE 1 Aluminium sheets are used either without organic coatings or with organic coatings mainly for aesthetic reasons.

NOTE 2 Different coating systems behave in different ways under various climatic conditions. The primer and/or adhesive should be chosen taking into account which type of substrate, pretreatment and top coat are used.

Reverse side painting or coating should be chosen as appropriate it being required for handling, storage and for corrosion protection in some installation conditions.

Performance requirements and test methods for coil coated aluminium shall be in accordance with EN 1396.