

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

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Summary of pages

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Dachdeckungsprodukte aus Metallblech – Festlegungen für vollflächig unterstützte Bedachungselemente aus Stahlblech

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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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of an identical text or by endorsement, at the latest by May 2000, and conflicting national standards shall be withdrawn at the latest by May 2000.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.

Annexes A, B, C and D are informative.

Introduction

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

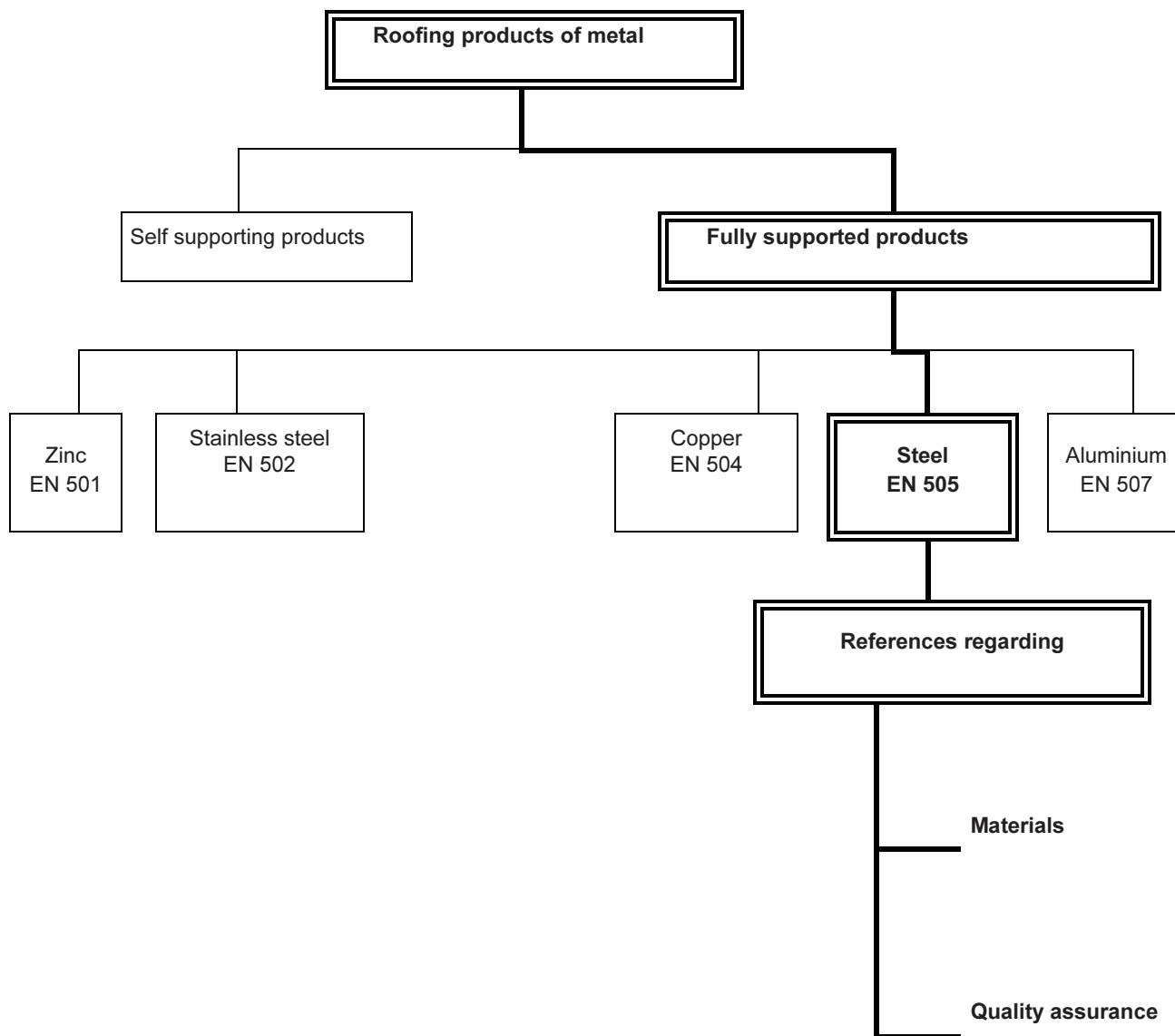


Figure 1 – Framework of standards

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 European Standard, but also on the design, construction and performance of the roof as a whole in relation to the environment and conditions of use.

Metallic coated steel sheet can be easily fabricated. It can be sheared, punched, pressed, drawn, folded, roll-formed without difficulty within the given limits of the properties listed in the respective material specifications.

Coil coated sheet can be fabricated like metallic coated steel sheet in most applications, but minimum bend radii, design of forming tools, process temperature etc are chosen according to material properties.

1 Scope

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

The 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).

The standard applies to all discontinuously laid and fully supported roofing products made of steel 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 formed (prefabricated) products. Requirements for preformed self-supporting products are given in pr EN 508-1.

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 10079, *Definition of steel products*.

EN 10142, *Continuously hot-dip zinc coated low carbon steel strip and sheet for cold forming - Technical delivery conditions*.

EN 10143, *Continuously hot-dip metal coated steel sheet and strip - Tolerances on dimensions and shape*.

EN 10147, *Continuously hot-dip zinc-coated structural steel strip and sheet - Technical delivery conditions*.

EN 10169-1, *Continuously organic coated (coil coated) steel flat products - Part 1 : General information (definitions, materials, tolerances, test methods)*.

ENV 10169-2, *Continuously organic coated (coil coated) steel flat products - Part 2 : Products for building exterior applications*.

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

EN 10214, *Continuously hot-dip zinc-aluminium (ZA) coated steel strip and sheet - Technical delivery conditions*.

EN 10215, *Continuously hot-dip aluminium-zinc (AZ) coated steel strip and sheet - Technical delivery conditions*.

3 Terms, definitions, symbols, units and abbreviated terms

3.1 Definitions

For the purposes of this European Standard, the following definitions apply in addition to the definitions in EN 10079.

3.1.1

hot-dip zinc coated steel sheet (type Z)

a product obtained by continuously hot-dip zinc coating cold reduced strips of either low carbon steel for cold forming to EN 10142 or steel of structural quality to EN 10147

3.1.2

hot-dip zinc-aluminium coated steel sheet (type ZA)

a product obtained by continuously hot-dip coating cold reduced strips of low carbon steel for cold forming steel or steel of structural quality on a production line using an alloy consisting of:

- 5% aluminium (nominal percentage by mass);
- 95% zinc (nominal percentage by mass);
- small amounts of mischmetal.

NOTE EN 10214 refers to this type of steel.

3.1.3

hot-dip aluminium-zinc coated steel sheet (type AZ)

a product obtained by continuously hot-dip coating cold reduced strips of low carbon steel for cold forming or steel of structural quality on a production line using an alloy consisting of:

- 55 % aluminium (nominal percentage by mass);
- 1,5 % silicon (nominal percentage by mass);
- balance zinc.

NOTE EN 10215 refers to this type of steel.

3.1.4

hot-dip aluminium-coated steel sheet (type A)

a product obtained by continuously hot-dip aluminium coating cold reduced strips of low carbon steel for cold forming or steel of structural quality on a continuous production line (see annex A)

3.1.5

organic coated steel sheet

a product obtained by factory application of paint by roller or spray processes, or factory applied organic film, on substrates of type Z, type ZA, type AZ or type A coated steel sheet.

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

3.1.6

multilayer coated steel sheet

a product obtained by continuously coating on both sides hot-dip zinc coated cold reduced strips of low carbon steel for cold forming or steel of structural qualities with one or multiple applications of thermoplastic asphalt compounds (minimum thickness 1,5 mm) and subsequent lamination of a metal foil with or without decorative painting (see annex B)

3.1.7

fully supported

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