SLOVENSKI STANDARD
oSIST prEN 508-3:2020

01-september-2020

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: Nichtrostender Stahl

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

Ta slovenski standard je istoveten z: **prEN 508-3**

ICS:

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

oSIST prEN 508-3:2020 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 508-3

July 2020

ICS 91.060.20

Will supersede EN 508-3:2008

English Version

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 128.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 508-3:2020) 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 document is currently submitted to the CEN Enquiry.

This document will supersede EN 508-3:2008.

EN 508 *Roofing and cladding 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.

In comparison with EN 508-3:2008, the scope of the document has been extended to cladding products. Grades have been added.

These changes or additions can be found in the following Clauses and subclauses: Clause 1; Clause 2; 3.2.3; 4.2.1; 4.2.4; 4.3.5; 4.3.5.2; 4.3.5.3; Annex A and the Bibliography.

Introduction

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

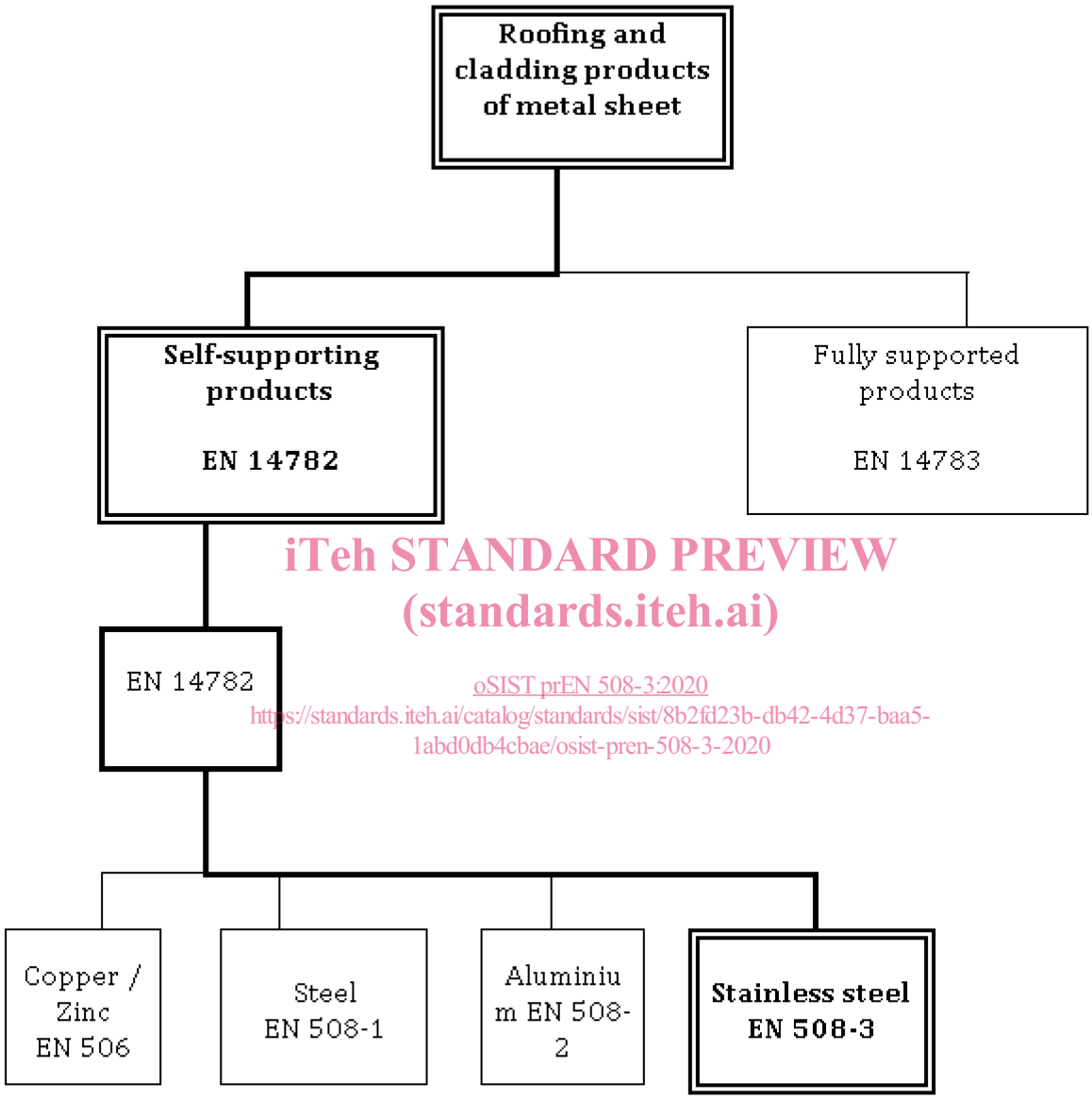


Figure 1 — Framework of standards

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

1 Scope

This Part of EN 508 specifies requirements for self-supporting products for roof covering, wall cladding, lining, liner tray and title products for discontinuous laying made from stainless steel sheet with or without additional metallic and/or organic coatings.

This document 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.

This document applies to all discontinuously laid self-supporting external profiled sheets for roof covering, wall cladding, lining, liner tray and title products with the exception of tiles with a surface area less than 1 m^2 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.

This document does not cover products for structural purposes, i.e. it does cover products used in structural class III (according to EN 1993-1-3), it does not cover products used in constructions of Structural Classes I and II (according to EN 1993-1-3) intended to contribute to the global or partial stability of the building structure by providing racking resistance or resistance of permanent static loads (excluding self-weight of the metal sheet).

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

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 10088-4, *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 14782, *Self-supporting metal sheet for roofing, external cladding and internal lining — Product specification and requirements*

EN ISO 9445-1, *Continuously cold-rolled stainless steel — Tolerances on dimensions and form — Part 1: Narrow strip and cut lengths (ISO 9445-1)*

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 and definitions, symbols and abbreviations

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

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 1 to entry: For roofing products the stainless steel grades are:

— ferritic;

— austenitic with or without molybdenum;

— austenitic ferritic (duplex); and

— higher alloyed grades.

3.2.2
tin coated stainless steel
stainless steel continuously coated with tin by electrodeposition

3.2.3
organic coated stainless steel
stainless steel or tin coated stainless steel which is continuously (factory-) painted by roller or spray process

Note 1 to entry: 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 1 to entry: See Figures 2 to 5.

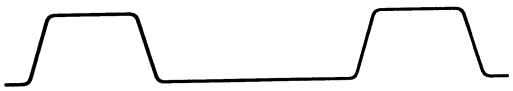


Figure 2 — Part of typical trapezoidal profile

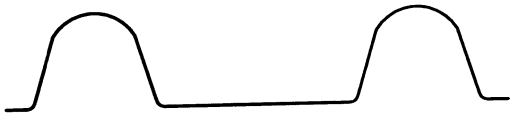


Figure 3 — Part of typical trapezoidal profile with rounded crowns

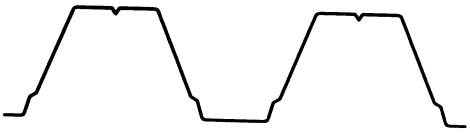


Figure 4 — Part of typical trapezoidal profile with stiffened crown and web

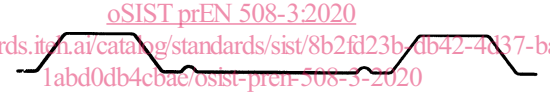


Figure 5 — Part of typical trapezoidal profile with stiffened valley

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 1 to entry: See Figure 6.

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 to entry: See Figures 7 and 8.

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

Note 3 to entry: As these types of roof covering products are used in proprietary roofing systems, no structural requirements are given within the present standard.

Note 4 to entry: These products are normally designed by testing.

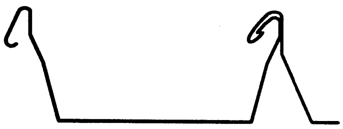


Figure 7 — Typical standing seam profile

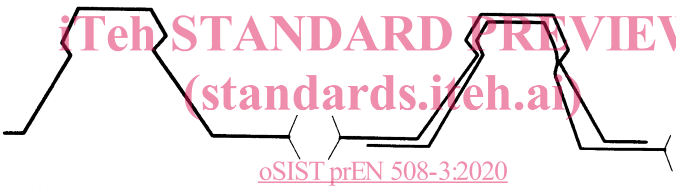


Figure 8 — Typical concealed fix profile

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 to entry: See Figures 9 (a) b) and (c)).

Note 2 to entry: The tile profiles may include transverse steps.

Note 3 to entry: As these types of roof covering products are used in proprietary systems no structural requirements are given within this document.

Note 4 to entry: These products are normally designed by testing.

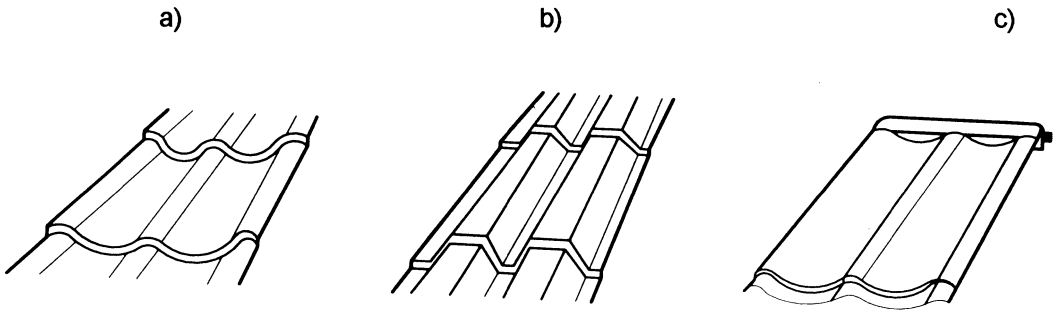
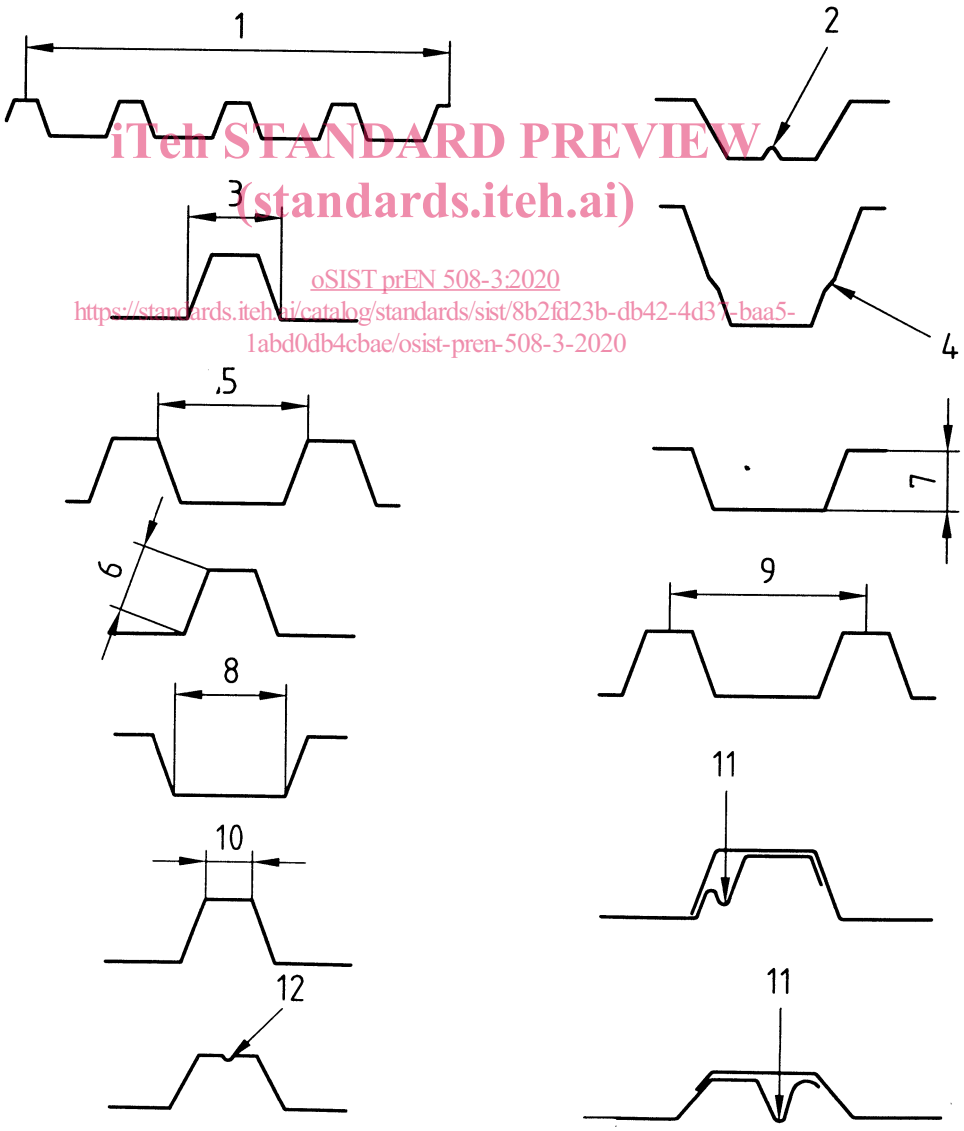


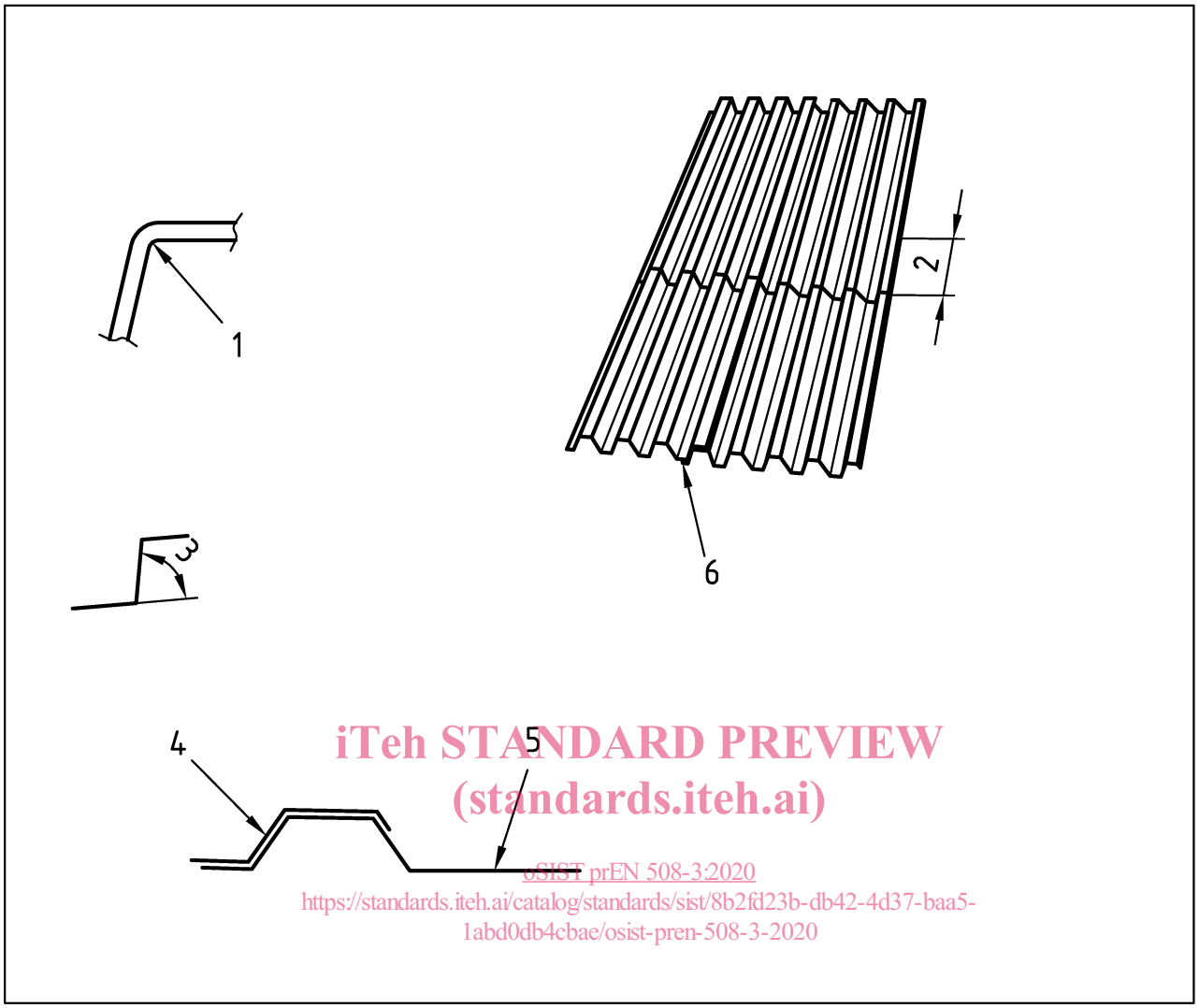
Figure 9 — Typical tile profiles

3.4 Product geometry

Note 1 to entry: 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.



a) Definitions of the parts of typical trapezoidal profiled sheets

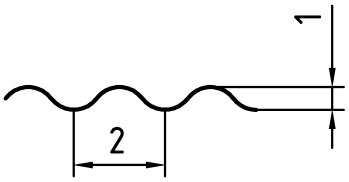


b) Definitions of the parts of typical trapezoidal profiled sheets

Key

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

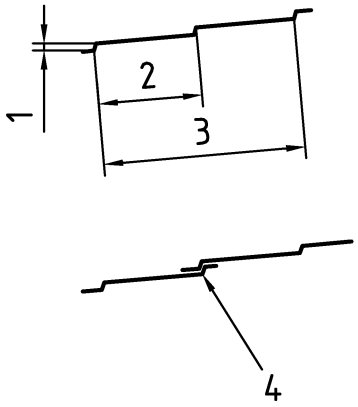
Figure 10 — Definitions of the parts of typical profiled sheets



Key

1 Depth
2 Pitch

Figure 11 — Definitions of the parts of typical sinusoidal profiled sheets



Key

1 Height of the step
2 Length of the step
3 Number of steps
4 End lap

Figure 12 — Definitions of the parts of typical tile

3.5 Symbols and abbreviations

For the purposes of this document, the following symbols and abbreviations apply.

X	Stainless steel
X ...+SE	Tin coated stainless steel
SP	Polyester paint coating
SP-SI	Silicone-modified polyester paint coating
PVDF	Polyvinylidene fluoride paint coating
PUR	Polyurethane paint coating
PUR-PA	Polyurethane-modified polyester paint coating
PVC(P)	Polyvinylchloride(plastisol) coating applied by coil coating process
PVC(F)	Polyvinylchloride (plastisol) film coating
PVF(F)	Polyvinylfluoride film coating
PE(F)	Polyethylene film coating
PET(F)	Polyethylene terephthalate film coating
PP(F)	Polypropylene film coating