

English Version

Cold formed steel sheet piles - Part 2: Tolerances on dimensions and shape

Palplanches en acier profilées à froid - Partie 2 :
Tolérances sur dimensions et forme

Kaltgeformte Spundbohlen aus Stahl - Teil 2:
Grenzabmaße und Formtoleranzen

This draft European Standard is submitted to CEN members for formal vote. It has been drawn up by the Technical Committee CEN/TC 459/SC 3.

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

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European foreword

This document (FprEN 10249-2:2024) has been prepared by Technical Committee CEN/TC 459/SC 3 “Structural steels other than reinforcements”, the secretariat of which is held by DIN.

This document is currently submitted to the Formal Vote.

This document will supersede EN 10249-2:1995.

FprEN 10249-2:2024 includes the following significant technical changes with respect to EN 10249-2:1995:

- a) restructure of the standard;
- b) update of the normative references and general requirements;
- c) addition of a new Table 2 with the tolerance on the width;
- d) adaptation of the terms “sweep” and “bow” in 8.2 and 8.3;
- e) new wording for Clause 11 about the mass tolerance;
- f) addition of two figures in Clause 13 about interlocks.

EN 10249 consists of the following parts under the general title *Cold formed steel sheet piles*:

- *Part 1: Technical delivery conditions*
- *Part 2: Tolerances on dimensions and shape*

1 Scope

This document specifies the tolerances on dimensions, squareness of ends, straightness and mass of cold formed steel sheet piles and is designed to be read in conjunction with EN 10249-1.

This document specifies the tolerances of cold formed steel sheet piles produced from hot rolled strip or sheet with a thickness equal to or greater than 3 mm.

The products specified are for general, structural and civil engineering works. The types of steel sheet piles covered by this document are: Z-shaped, Omega-shaped and trench sheets.

This document also specifies options that can be agreed between the purchaser and the manufacturer at the time of the order and enquiry.

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 10021:2006, *General technical delivery conditions for steel products*

EN 10079:2007, *Definition of steel products*

EN 10051, *Continuously hot-rolled strip and plate/sheet cut from wide strip of non-alloy and alloy steels — Tolerances on dimensions and shape*

EN 10249-1, *Cold formed sheet piling of non alloy steels — Part 1: Technical delivery conditions*

EN 12063, *Execution of special geotechnical work — Sheet-pile walls*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 10021:2006, EN 10079:2007, EN 10249-1 and the following apply.

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

- ISO Online browsing platform: available at <https://www.iso.org/obp/ui>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 General requirements

The tolerances on dimensions and shape of this document shall apply, as far as possible, in addition to the technical delivery conditions of EN 10249-1.

The determination of sheet pile dimensions and tolerances shall comply with the following preparation before any measurement is carried out. This requirement shall apply in the workshop or on-site without any distinction.

The sheet piles to be measured shall be extracted from the storing stack and laid down on the ground separately. The reference ground shall be flat and free of any local relief over the length of the sheet piles. Transverse supports, e.g. blocks, may be used for supporting the sheet piles on the ground, but the distance between supports shall not exceed five meters. The sheet piles shall be laid down parallel to the ground as indicated in Clauses 5 to 11. Double Z-shaped sheet piles without welding of the common interlock, as well as single Z-shaped piles shall be supported by blocks or any suitable supporting device.

All the measurements are taken outside of the zone deformed by cutting at a distance from the ends of at least 250 mm.


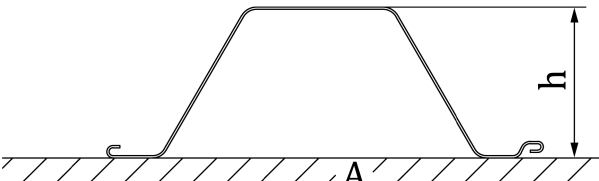
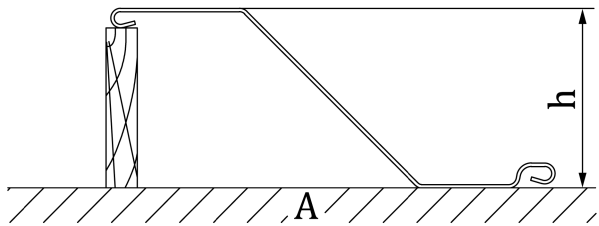
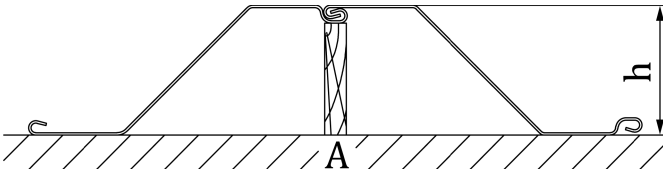
The dimensions are measured by instruments of appropriate accuracy.

Although the tolerances on the straightness stated in this document are cumulative, each sheet pile shall slide through its own weight when being threaded over the free length of one adjacent and identical sheet pile that has been installed in compliance with the installation tolerances of EN 12063.

5 Height of profiles

The tolerances on the height of sheet piles are given in Table 1.

Table 1 — Height of sheet piles

Dimensions in millimetres			
Designation	Figure	Nominal dimension	Tolerance
Height <i>h</i>		$h \leq 200$ $200 < h \leq 300$ $300 < h \leq 400$ $400 < h$	± 4 ± 6 ± 8 ± 10
			
			
			
	Key A ground		

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