

Corrugated sheet sections for rail vehicles

Dimensions Weights Static values

DIN

25 512

Wellblechprofile für Schienenfahrzeuge; Masse, Gewichte, statische Werte

As it is current practice in standards published by the International Organization for Standardization (ISO), the comma has been used throughout as a decimal marker.

Dimensions in mm

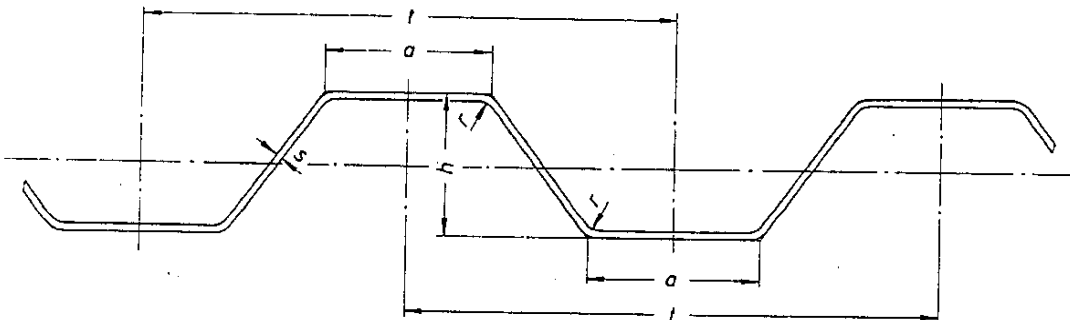
1 Scope and purpose

This standard applies to section standards and dimensions for corrugated sheet sections made from general structural steels, hot-dip galvanized general structural steels, stainless steels and wrought aluminium alloys. The quoting of the standard designation in design drawings facilitates the dimensioning of the structural shape.

2 Other relevant standards

- DIN 1541 Flat steel products; cold rolled wide mill strip and sheet of unalloyed steels; dimensions, permissible deviations of dimension and form
- DIN 1783 Aluminium sheet and sheet strip; 0,4 to 15 mm, cold rolled, dimensions
- DIN 59 382 Flat steel products; cold rolled wide strip and sheet of stainless steels; dimensions, permissible deviations of dimension and form

3 Dimensions, designation



Designation of a corrugated sheet section B of thickness $s = 1,5$ mm:

Corrugated sheet section DIN 25 512 – B 1,5

Table 1. Corrugated sheet sections of steel

Section	s 1)	a $\pm 0,5$	h $\pm 0,5$	r \approx	t ± 1	Extended length for pitch t \approx	Weight (8 kg/dm ³) for t /running m kg/m \approx	Areal moment of inertia 2nd grade I_x referred to pitch t cm ⁴	Section modulus W_x cm ³
A	0,8	25	21	2,5	80	98,5	0,63	0,55	0,52
	1					98,0	0,78	0,65	0,62
	1,2					97,5	0,94	0,78	0,75
	1,5					97,0	1,16	0,91	0,87
	2					95,5	1,53	1,13	1,07
B	0,8	27	26	2,5	74	105,5	0,68	0,92	0,71
	1					105,0	0,84	1,06	0,82
	1,2					103,5	0,99	1,32	1,02
	1,5					103,0	1,24	1,50	1,15
	2					101,0	1,62	1,90	1,46

1) Tolerances according to semi-finished product standards, e.g. DIN 1541

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Table 2. Corrugated sheet sections of wrought aluminium alloys

Section	s ¹⁾	a ± 0,5	h +1 0	r ≈	t ± 1	Extended length for pitch t ≈	Weight (2,77 kg/dm ³) ²⁾ for t/running m kg/m ≈	Areal moment of inertia 2nd grade I _x referred to pitch t cm ⁴	Section modulus W _x cm ³
C	1	27	26	3	74	104,0	0,29	1,06	0,82
	1,2		26,2			103,0	0,34	1,32	1,02
	1,5		26,5			102,5	0,43	1,50	1,15
D	1,2	44	25	5	100	129,5	0,44	2,00	1,60

1) See table 1
2) For AlZn 4,5 Mg 1 F35

Explanations

In the course of deliberations in the FSF Technical Committee "Grundnormen und Maschinenelemente (AAI)" (Basic Standards and Machine Parts), the original intention that DIN 25 512 Part 1 should apply to steel sections and DIN 25 512 Part 2 to aluminium sections was abandoned. Instead, because the dimensions in many cases are the same, and for the sake of simplicity, corrugated sheet sections are to be listed in one standard only.

As compared with the November 1972 edition, this standard contains the following amendments:

1. The clause "Scope and purpose" has been incorporated.
2. Separate tables of dimensions have been provided for corrugated sheet sections of steel and for those of wrought aluminium alloys.
3. A column showing the extended length of the pitch t has been added to the tables to facilitate determination of the sheet sizes required as material. The extended lengths listed for corrugated sheet sections of steel were found by calculation, for which reason minor variations must, in practice, be reckoned with, due to material and manufacturing factors.
4. Sheet thickness 1,25 mm has been altered to 1,2 mm and sheet thickness 0,8 mm added.
5. The designation has been adapted to conform to DIN 820 Part 27.

The recommendation that the materials to be given preference for the production of corrugated sheet sections be listed in the standard found as little support as did the proposal to convert the standard into a semi-finished product standard, because no advantages would accrue therefrom.