

Sheet piling steel grades for hot-rolled sheet piles conforming to DIN EN 10 248-1

American			Canadian			European				
ASTM	Yield Strength		CSA G40.21	Yield Strength		EN 10248	Yield Strength		Tensile strength	Minimum elongation
	ksi	MPa		ksi	MPa		ksi	MPa	MPa	%
A 328	39	270	<b>Grade 260 W</b>	38	260	<b>S 240 GP</b>	35	240	340	26
A 572 Gr. 42	42	290	<b>Grade 300 W</b>	43	300	<b>S 270 GP</b>	39	270	410	24
A 572 Gr. 50	50	345	<b>Grade 350 W</b>	51	355	<b>S 320 GP</b>	46	320	440	23
A 572 Gr. 55	55	380	<b>Grade 400 W</b>	58	400	<b>S 355 GP</b>	51	355	480	22
A 572 Gr. 60	60	415				<b>S 390 GP*)</b>	57	390	490	20
A 572 Gr. 65	65	450				<b>S 430 GP*)</b>	62	430	510	19
A 690	50	345				<b>S 460 AP**)</b>	67	460	550	17
A 690*	57	390								

\*) For the higher-strength sheet piling steels S 390 GP and S 430 GP, an approval certificate (Z-30. 1-17) from the building supervisory authorities is available.

\*\*) This is not within the 10248 but Arcelor Mittal mill specification.

Mechanical proportions according to EN 10025 – 2:2004. Other steel grades on request.

Deviation limits and dimensional tolerances for hot-rolled sheet piles made of unalloyed steels conforming to DIN EN 10 248-2.

<b>Pile width</b>	Single piles ± 2%; double and triple piles ± 3%
<b>Wall thicknesses of U-sections</b>	t: up to 8.5 mm = ± 0.5 mm; over 8.5 mm = ± 6% t s: up to 8.5 mm = ± 0.5 mm; over 8.5 mm = ± 6% s*
<b>Wall thicknesses of Z-sections and straight-web sections</b>	t, s: up to 8.5 mm = ± 0.5 mm; over 8.5 mm = ± 6% s, t
<b>Height of U-sections</b>	h: up to 200 mm = ± 4 mm; over 200 mm = ± 5 mm
<b>Height of Z-sections</b>	h: up to 200 mm = ± 5 mm; from 200 up to 300 mm = ± 6 mm; over 300 mm = ± 7 mm
<b>Deviation from straightness</b>	The longitudinal deviation from straightness must not exceed 0.2% of pile length.
<b>Pile length</b>	Sheet pile lengths are permitted to deviate by + 5 in. and - 0 in. (± 200 mm) from the ordered lengths.
<b>Cut</b>	Cut at right angles to the longitudinal axis. The total deviation between the highest and lowest points in the cutting plane, measured on a single pile along the longitudinal axis, must not exceed 2% of pile width.
<b>Weight</b>	The tolerance between the arithmetic weight (according to section tables) and weighed weight of the total consignment must be within ±2.5% (± 5%).
<b>Section interlocks</b>	The interlocks shall have adequate free play so that the piles can be fitted into each other and they must engage in such a manner that the in-service forces can be transmitted. The minimum interlock overlap on U and Z piles must not be less than 4 mm and on straight-web sections not less than 7 mm.

\*) Normally the positive tolerance shall be at the discretion of the manufacturer. At the time of the enquiry and order, a limitation on the positive tolerance can be agreed.

In this case, the following values should be chosen: + 0,5 mm for s < 8,5 mm and + 6 % for > 8,5 mm.

Available types

