

SSAB Laser® 250C

Dimensions

Delivery form	Thickness (mm)	Width (mm)	Length (mm)
Hot rolled sheet as rolled	2.0- 16.0	1000- 1860	1000- 16000
Hot rolled sheet pickled and oiled	2.0- 16.0	1000- 1830	1000- 16000
Hot rolled plate as rolled	6.0- 30.0	1000- 3300	2000- 15000

Mechanical Properties

Delivery form	Thickness (mm)	Yield strength R _e (min MPa)	Tensile strength R _m (MPa)	Elongation A ₈₀ ¹⁾ (min %)	Elongation A ₅ ²⁾ (min %)	Min inner bending radius 90° t ≤ 6mm* (x t)	Min inner bending radius 90° t > 6mm* (x t)
Hot rolled sheet	2.0- 16.0	240	360- 460	23	30	0.5	0.7
Hot rolled plate	6.0- 30.0	240	360- 460	-	29	1.0	1.0

The mechanical properties are tested transverse to the direction of rolling.

¹⁾ A₈₀ value applies for thicknesses < 3.00 mm.

²⁾ A₅ value applies for thicknesses ≥ 3.00 mm.

*Bending guarantees are valid for both longitudinal and transverse direction.

Impact Properties

Grade	Min longitudinal test impact energy
SSAB Laser® 250C	40J /-20°C

Impact strength is tested by Charpy V test in accordance with EN ISO148-1:2010. Impact energy value ≥ 40J is guaranteed for test piece size 10 x 10 mm. When testing thickness <10 mm, the width of the test pieces correspond with the plate/sheet thickness. The values decrease in direct relation to the surface area of the test piece. No impact tests are carried out for thicknesses < 6 mm.

Chemical Composition (Ladle analysis)

C (max %)	Si (max %)	Mn (max %)	P (max %)	S (max %)	CEV (max)
0.12	0.03	1.3	0.020	0.020	0.30

All SSAB Laser® steels are aluminum-killed (Al ≥ 0.015%) and grain-refined. Additionally, niobium (Nb), vanadium (V), titanium (Ti) and/or boron (B) may be used as single alloying element or in any combination.

$$CEV = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Cu + Ni}{15}$$

Tolerances

All SSAB Laser® products are delivered with SSAB Laser® tolerances, which means increased guarantees compare to corresponding EN standards. Detailed information is available on ssab.com.

Thickness

Hot rolled sheet: SSAB Laser® tolerances correspond to ⅔ of EN 10 051:2010 as default. Tighter tolerances are available upon request.

Hot rolled plate: SSAB Laser® tolerances correspond to ¾ of EN 10 029:2011 as default.

Width

Hot rolled sheet: -0/+20 mm for mill edge sheet; -0/+2 mm for cut edge sheet. Tighter tolerances are available upon request.

Hot rolled plate: -0/+4-10mm depending on the thickness.

Length

Hot rolled sheet:

Nominal sheet length l (mm)	Tolerance (mm)
$l \leq 4000$	-0 / +3
$4000 < l \leq 6000$	-0 / +4
$6000 < l \leq 8000$	-0 / +5
$8000 < l \leq 13000$	-0 / +6
$13000 < l \leq 16000$	-0 / +7

Hot rolled plate:

Nominal plate length l (mm)	Tolerance (mm)
$2000 < l \leq 10000$	-0 / +15
$10000 < l \leq 15000$	-0 / +20

Shape

Hot rolled sheet: according to EN 10 051:2010.

Hot rolled plate: according to EN 10 029:2011.

Flatness

Hot rolled sheet: ≤ 3 mm/m flatness deviation for both delivery condition and laser cut parts.

Hot rolled plate: ≤ 3 mm/m flatness deviation for both delivery condition and laser cut parts.

Surface Properties

According to EN 10 163-2 Class A, Subclass 3.

Delivery Conditions

SSAB Laser® 250C is delivered in normalized rolled condition.

Surface and edge condition

Hot rolled sheet: as rolled or pickled and oiled surface condition with mill edge. Cut edge is available upon request.

Hot rolled plate: as rolled surface condition and cut edges as default.

Fabrication and Other Recommendations

All SSAB Laser® products have been optimized for laser cutting, cold forming and welding.

For information concerning fabrication, please visit ssab.com, consult your local contact person or contact SSAB's Tech Support organization by e-mail at techsupport@ssab.com.

Appropriate health and safety precautions must be taken when cutting, bending, machining, welding, or otherwise working on the product.

Contact Information

www.ssab.com/contact