

Strenx[®] 1100 CR

General Product Description

Cold-rolled structural steel at 1100 MPa

Strenx[®] 1100 CR is a cold-rolled structural steel with a minimum yield strength of 1100 MPa for stronger and lighter structures.

Typical applications include a wide range of components and parts in the lightest possible load-bearing structures, for example in the lifting sector. Strenx[®] 1100 CR comes both as cut-to-length sheets and as coils.

Dimension Range

Strenx[®] 1100 CR is available in thicknesses of 0.80 - 2.10 mm, widths up to 1500 mm and in lengths up to 8.5 meters.

Mechanical Properties

Yield strength R _{p0.2} (min MPa)	Tensile strength R _m (MPa)	Elongation A ₈₀ (min %)	Min. inner bending radius for a 90° bend ¹⁾ (x t)
1100	1300 - 1500	3	3.5

¹⁾ For both longitudinal and transverse direction.

The mechanical properties are guaranteed in coil condition.

The mechanical properties are tested in the longitudinal direction.

Chemical Composition (ladle analysis)

C (max %)	Si (max %)	Mn (max %)	P (max %)	S (max %)	Al (min %)	Nb+Ti (max %)
0.16	0.40	1.80	0.020	0.010	0.015	0.10

Carbon Equivalent CET(CEV)

Thickness (mm)	0.8 - 2.1
Typ CET(CEV)	0.30 (0.41)

$$CET = C + \frac{Mn + Mo}{10} + \frac{Cr + Cu}{20} + \frac{Ni}{40}$$

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

Tolerances

More details are given in SSAB's brochure Strenx® Guarantees or on www.ssab.com.

Thickness

Tolerances according to Strenx® Thickness Guarantees.

Strenx® Thickness guarantees meet the normal thickness tolerance requirements of EN 10131.

Length and Width

Tolerances according to EN 10131.

Narrower tolerances according to the SSAB standard are available on request.

Length tolerances only apply for cut to length sheets.

Flatness

Tolerances according to Strenx® Flatness Guarantees Class B.

Strenx® Flatness Guarantees offer narrower tolerances compared to EN 10131.

Flatness guarantees only apply for cut to length sheets.

Delivery Conditions

Cold rolled. Strenx® Cold rolled products are available with mill or cut edge.

Delivery requirements can be found in SSAB's brochure Strenx® Guarantees or www.ssab.com.

Fabrication and Other Recommendations

Welding, bending and machining

Strenx® Cold rolled products has good cold forming, welding and cutting performance.

Strenx® Cold rolled products is not suited for applications requiring hot working or heat treatments at temperatures above 180°C, since the material then may lose its guaranteed properties.

For information concerning fabrication, see SSAB's brochures on www.ssab.com or consult Tech Support.

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

Contact Information

www.ssab.com/contact