

General Product Description

The high-strength structural steel at 700 MPa

Strenx® 700 CR is a cold-rolled structural steel with a minimum yield strength of 700 MPa used to produce stronger and lighter structures.

Strenx® 700 CR comes both as cut-to-length sheets and as coils. Typical applications include a wide range of components and parts, for example load-bearing structures.

Dimension Range

Strenx® 700 CR is available in thicknesses of 0.70-2.10 mm, widths up to 1500 mm and in lengths up to 8.5 meters, when delivered as cut-to-length sheets.

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⁾
700	1000 - 1200	7	2.0 x t

The mechanical properties are tested in the longitudinal direction.

¹⁾ For both longitudinal and transverse 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	0.7 - 2.1
Typical CET(CEV)	0.29 (0.40)

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

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

Tolerances

More details are given in SSAB's brochures 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® 700 CR is available with mill or cut edge.

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

Fabrication and Other Recommendations

Welding, bending and machining

Strenx® 700 CR has good cold forming, welding and cutting performance.

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

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

Contact Information

www.ssab.com/contact