

Strenx® 700 CR W

General Product Description

The high-strength, corrosion resistant structural steel at 700 MPa.

Strenx® 700 CR W is a cold-rolled weathering steel with a minimum yield strength of 700 MPa, for stronger and lighter structures.

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

Dimension Range

Strenx® 700 CR W is available in thicknesses of 0.70 - 2.10 mm, widths up to 1510 mm and in lengths up to 8500 mm, 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⁾ (x t)
700	1000 - 1200	7	2.0

¹⁾ For both longitudinal and transverse direction.
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 %)	Cu (max %)	Cr (max %)
0.16	0.80	1.50	0.020	0.010	0.015	0.50	0.6

Carbon Equivalent CET(CEV)

Thickness (mm)	0.7 - 2.1
Typ CET(CEV)	0.30 (0.46)

$$CET = C + \frac{Mn + Mo}{10} + \frac{Cr + Cu}{20} + \frac{Ni}{40} \quad CEV = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Cu + Ni}{15}$$

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® 700 CR W is not suited for applications requiring hot working or heat treatments at temperatures above 200°C, since the material then may lose its guaranteed properties.

The weldability of Strenx® 700 CR W is good. All the conventional fusion welding methods can be used. To obtain the same corrosion resistance* in the weld as in the base metal, special filler metals should be used.

Painting of SSAB weather resistant steel is easy and will result in good paint adhesion. This can further increase the maintenance interval of the component. In order to ensure the uniform colour of the patina, all impurities must be cleaned from the steel surface. Organic impurities such as oil or protective greases must be removed by washing with suitable solvent.

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.

* Corrosion resistance in limited conditions e.g. atmospheric corrosion. Please be in contact with tech support for further information.

Contact Information

www.ssab.com/contact