

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 is available as cut-to-length sheets.

Dimension Range

Strenx® 1100 CR is available as cut to length sheets 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⁾ |
|--|---------------------------------|--------------------------------|---|
| 1100 | 1300 - 1500 | 3 | 3.5 x t |

The mechanical properties are tested in the longitudinal direction.

The mechanical properties are guaranteed in coil condition.

¹⁾ Bending properties 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 | 0.8 - 2.1 |
|------------------|-------------|
| Typical 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 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 10 131. Flatness guarantees only apply for cut to length sheets.

Delivery Conditions

Cold rolled. Strenx® 1100 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® 1100 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