

COR-TEN® A, hot rolled

General Product Description

With its anti-corrosive properties, COR-TEN® minimizes the need for maintenance and corrosion-prevention treatment, contributing significantly to low maintenance costs throughout the product lifecycle. In addition to low maintenance costs, the reduced need for corrosion prevention means less use of paint and solvents, making COR-TEN® an environmental friendly choice of steel. Typical applications are structural components for buildings, transmission poles, bridges and many others.

Dimension Range

COR-TEN® A Hot rolled is available in thickness 2.00-12.70 mm and width up to 1860 mm as coil, slit coil and cut to length and 3300 mm as plate. Length up to 16 meters as cut to length and 13 meters as plate.

Mechanical Properties

Yield strength R_{eL} (min N/mm ²)	Tensile strength R_m (min N/mm ²)	Elongation A_{50} (min %)	Bending Radius 90° Bend (min)
345	485	20	2.0 x t

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

Chemical Composition

C (max %)	Si (%)	Mn (%)	P (%)	S (max %)	Al (%)	Cu (%)	Cr (%)	Ni (max %)
0.12	0.25 - 0.75	0.20 - 0.50	0.07 - 0.15	0.030	0.015 - 0.06	0.25 - 0.55	0.50 - 1.25	0.65

Carbon Equivalent Values

Thickness (mm)	Strip products 2 - 12.7	Plate products 6 - 12.7
CEV (typical)	0.35	0.39

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

Tolerances

SSAB Weathering is delivered with SSAB Weathering tolerances, with improved guarantees compared to corresponding EN standards. More details are available at SSAB.com

Thickness

Strip: SSAB Weathering thickness tolerances correspond to 2/3 of EN 10051:2010 as default value. After special agreement, tolerances down to 1/2 of EN 10051:2010 can be delivered for certain products and dimensions.

Plate: COR-TEN® A is delivered with tolerances that correspond to ¾ of EN 10 029:2011 as default value.

Length and Width

Strip: SSAB Weathering tolerances for width and length are according to SSAB standard and offer narrower width and length tolerances compared to EN 10051:2010.

For coil and sheet with mill edge, the width tolerances are corresponding to -0/+20 mm.

For coil and sheet with cut edge, the width tolerances are corresponding to -0/+2 mm.

After special agreement, tighter tolerances can be delivered for certain products and dimensions.

Length tolerances only apply for cut to length sheets.

Plate: Width tolerances are -0/+4-10mm depending on the thickness. Length tolerances are -0/+15-25mm depending on length.

Shape

Strip: SSAB Weathering is delivered with shape tolerances according to EN 10051:2010. Narrower tolerances according to the SSAB standard are available on request.

Plate: According to EN 10 029:2011.

Flatness

Strip: SSAB Weathering tolerances correspond to SSAB Flatness Guarantees Class A.

SSAB Weathering tolerances guarantee a maximum flatness deviation of 3 mm/m in addition to the EN 10051:2010 flatness requirements.

Flatness guarantees only apply for cut to length sheets.

Plate: Max flatness deviation 6 mm/m.

Surface Properties

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

Delivery Conditions

Coils, slit coils and cut to length: Controlled rolled or thermomechanical rolled.

Heavy plates: Hot-rolled, normalised rolled or normalised in furnace.

Inspection documents

The inspection document shall be specified at the time of order. The European types of inspection documents are defined in the EN 10204:2004 standard.

Fabrication and Other Recommendations

COR-TEN® A has extra corrosion resistance with good formability, toughness and weldability.

COR-TEN® is an internationally registered trademark of United States Steel Corporation.

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