

Cladding lamella: Lamella Cor-Ten 30



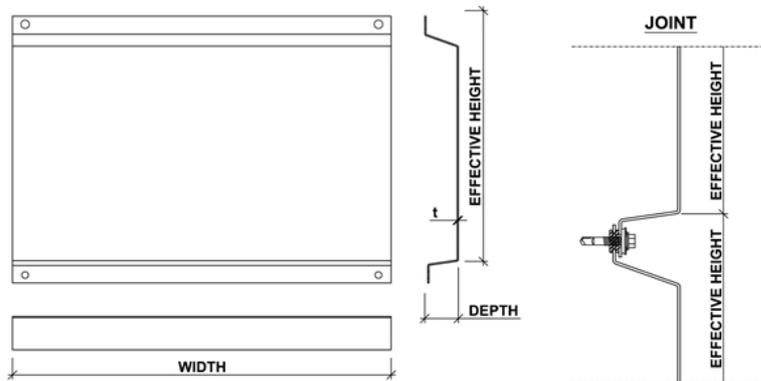
Create a groovy, rusty surface with Lamella Cor-Ten 30 for ventilated Cor-Ten facade systems.

Be inspired!

Experience the shape and its details on the finished facade surface. Energise your facade with Liberta Solar panels. Visualize the material and colours in different lightings and from various perspectives with the Ruukki Design Palette visualizer.

Dimensions & shapes

Effective height:	Standard 300 (150...600) mm
Width:	150...3000 mm
Depth:	40 mm
Material thickness (t):	Steel Cor-Ten 1.50 mm
Fasteners:	Visible



Materials

Material	Material thickness
Steel Cor-Ten A	1.50 mm

Due to its unique chemical composition, Cor-Ten weather-resistant structural steel sheet has a significantly better ability to resist atmospheric corrosion than similar general structural steels. Weather-resistant steel is used in architectural applications without requiring any separate surface treatment. Use of weather-resistant steel thus eliminates the need for surface treatments during the manufacturing and operational periods, in turn lowering the environmental load and costs throughout the product's life cycle.

The weather resistance of the product is due to its oxide layer i.e. the patina which forms on the steel surface which is resistant to the action of alloys and has low oxygen permeability. The oxide layer is created when weather-resistant steel is wetted and dried repeatedly. The protective surface layer forms in normal weather conditions within 18...36 months. The patina layer is initially reddish brown in colour, becoming darker in tone over the course of time. In industrial environments the patina forms more rapidly on the steel and darkens more than in cleaner rural environments. The protective patina layer cannot form, however, if the surface of the steel is continuously damp or dirty.

Cor-Ten A grade steel is used for the manufacture of panels (S355J0WP-COR-TEN A).

Instructions

Installation

Installation should be planned at an early stage. This is important to ensure that the ordered lamellas arrive at the site in the correct sequence. Before installation, the project-specific plans should be reviewed, especially the starting height, gap edges, eaves, corner details, lamella support structures and fastening methods as well as the number of fasteners. There must be an adequate number of measurement points in the lamella surface both in horizontal and in vertical direction to ensure that the vertical and horizontal lines are the same width throughout the building. After the measurement lines have been checked, the installer marks the starting modules for the first lamella on both sides of a corner in both vertical and horizontal direction. If necessary, straightening is performed. The straightness of the lines is checked using e.g. laser, and color wire markings and alignment board is used. The levelness of the wall is checked before starting the installation. There should be no measurement deviations in support studs for the width of one panel.

The lamellas are fastened in Cor-Ten steel sheet metal support studs using the fasteners specified by the designer. It is recommended to include the studs in the lamella contract and install them at the same time as the lamellas. When installing frame etc. flashings, ensure that the functionality of the structure (ventilation, water removal, etc.) is not disturbed. So called storm flashings must be used to prevent water that is rising due to the wind pressure from gaining access to the structures. Connections to other structures should always be made using cover flashings, not gasket material.

Lamellas should always be installed taking into consideration the special characteristics of the panel material. The fitters' approach to 'cleanness' when handling the materials on site will influence the final uniformity of colour of the steel surface. Absolute carefulness both during the work and during the planning stage ensures the best possible results.

Two or (preferably) three installers are required. The lamellas should be lifted from the vertical sides. Lifting from the horizontal side may open the bended panel edges. The manufacturer is not responsible for the quality of the installation work.

The construction firm must inform its own installation team or subcontractor of recommended practices regarding lamella handling etc. with respect to the special material properties of Cor-Ten elements.

Installation phases

Installation plan

The following is checked at the site according to the installation plan:

- Positions of the lamellas
- Module lines
- Starting height
- Positions of window and door openings in the facade
- Corners

Levelness of the substructure

The levelness of the facade substructure is checked using e.g. alignment wire and laser measurement. The results are marked in a measurement protocol.

Joint flashings

The joint flashings under the support studs are installed (e.g. plinth flashings).

Support studs

Support studs are installed at the lamella ends and in the middle of the lamellas at distances of maximum 750 mm (recommendation). The number and type of the fasteners are specified by the designer. Both flanges of the support studs are fastened to the substructure according to the plan. At this stage the facade substructure is straightened according to the measurement protocol results (if necessary). Joints of the support studs should always be located at the supports. The starting height of the support studs is determined so that the bottom edge of the lowest lamella row can be steadily fastened to the substructure and the stud is not visible under the lowest panel line. Adequate air passage should be left between the plinth and the lowest panel row.

Joint flashings

The flashings are installed on top of the support studs.

Lamella installation

The installation of the lamella row is started at the bottom and continued towards the top. The upper lamella is placed on the lower lamella and thereafter fastened at the middle of the joint.

Maintenance

Suspensions

Suspensions should be avoided in the facade. If absolutely necessary, the supports for the suspension must be placed at the vertical joint all the way to the substructure or frame structure.

Cor-Ten facade maintenance

Cor-Ten steel is a practically maintenance-free material. The task of maintenance is to ensure that the conditions for formation of the patina layer

- Értékesítési és technikai támogatásunk munkatársai örömmel adnak felvilágosítást. Látogasson el a <http://www.ruukki.hu/Kapcsolatfelvetel> címre.

A webhelyünkön szereplő információk a legjobb tudásunk és tudomásunk szerint pontosak. Bár mindent megtettünk a pontosság biztosítása érdekében, cégünk nem vállal felelősséget a jelen kiadványban foglalt információk esetleges hibáiból vagy helytelen alkalmazásából eredő közvetlen vagy közvetett károkért. A változtatások jogát fenntartjuk.

Copyright © 2012 Rautaruukki Corporation. Minden jog fenntartva.

A Ruukki, a Rautaruukki, a More With Metals és a Ruukki terméknevek a Rautaruukki Corporation védjegyei vagy bejegyzett védjegyei.