

# EUROPEAN SOLIDARITY CENTRE

## Using Cor-Ten® steel for traditional shipyard technologies design

The European Solidarity Center that was opened in 2014 perfectly matches a shipyard landscape of Gdańsk, Poland. The building located in the historical area of the Solidarity Square, next to the Gdańsk Shipyard, has become a meeting place for generations, promoting development of ideas supporting civil society growth. It also serves as a research and development centre, library and conference centre. Additionally, it offers movie and theatre facilities, as well as various exhibitions, including a permanent exhibition presenting establishment and growth of the Solidarity movement.

The European Solidarity Center was designed by architectural studio Fort from Gdańsk. According to the project architects, the building's form was to be maximally straightforward, similarly to the objectives and methods of the Solidarity movement. The design features a simple layout of parallel and regularly arranged walls, deprived of any complicated details. The steel walls look like they were moving, with the first one that breaks and tilts. In order to strengthen a visual effect, the facade walls were made with the use of Cor-Ten® steel supplied by Ruukki. The decision to choose Cor-Ten®, aside from its weather-resistance properties, was also influenced by the fact that this material is traditionally identified with shipyard technologies.

Ruukki delivered two grades of Cor-Ten® steel - A and B with different thicknesses. The largest sheets used for the facade were 2,500 mm x 6,000 mm. 5 mm thick steel sheets with individual dimensions were custom-made in Raahe works, Ruukki's mill in Finland, under US Steel license.



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Cor-Ten belongs to steels with the increased resistance to atmospheric conditions, resulting from the chemical composition of such steels. As a result of alloying elements (copper, chromium, nickel and phosphorus), a dense protective patina layer composed of corrosion products is formed on the surface of Cor-Ten steel under the influence of weather conditions, which significantly slows down the rate of rusting.

Cor-Ten panels were used also inside the building. In this case, panels' area is smaller and their thickness is 1.00 mm. Cor-Ten panels designed for internal walls were delivered with a ready patina layer, since their formulation in internal applications would last for a few or even more years.

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#### **Ruukki's delivery: 2014**

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