

CORTEN STEEL

▶ WHAT IS CORTEN STEEL?

- ▶ Weathering steel or Corten steel is a term used to describe structural steel with improved resistance towards atmospheric corrosion. Weathering steel is a high strength low alloy material that is given an enhanced resistance to rusting under normal atmospheric conditions.

▶ HOW DOES CORTEN STEEL WORK?

- ▶ When a low alloy steel is in the presence of moisture and air it'll begin to rust, the rate of which is dependent on oxygen, moisture, and atmospheric contaminants coming into contact with the surface of the steel. As the steel continues to oxidize, the layer of rust forms a barrier to reduce the rate at which the steel will rust.
- ▶ Most structural steels are porous and will detach from the steel after a certain amount of time, after it comes apart the cycle of corrosion continues. With weathering steel, the process in which steel rust is the same, but the elements in the steel induce a stable layer of rust that adheres to the base material and is less porous. The film of rust that develops under a condition of alternating wet and dry cycles to create a protective barrier that prevents oxygen, moisture, and pollutants access to the material.

CITATIONS

- ▶ https://www.steelconstruction.info/Weathering_steel#How_weathering_steel_works