

Bezinox<sup>®</sup> non - magnetic armoring wire

# Play it cool cut your losses

Effective energy transmission

Advanced design optimisation

Reducing CO<sub>2</sub> footprint

Increased cable lifetime

Bezinox<sup>®</sup> is galvanised austenitic stainless steel wire which has several important benefits. The most important ones are non-magnetic behavior and increased corrosion resistance.

### **Reduction of energy losses and failures**

The properties of Bezinox<sup>®</sup> stainless steel wire significantly increase the power cable's efficiency and lifetime without the need to interfere with the cable design. Austenitic stainless steel has low permeability, which reduces energy losses in the armoring by the cable's magnetic field, thus eliminating its overheating.



## Expand your design options for greater efficiency

Increased cable lifetime thanks to excellent resistance to pitting and crevice corrosion

#### **Protecting your investment**

Crevice corrosion usually occurs in gaps a few micrometers wide, where the corrosive medium (electrolyte) circulation is unachievable. Operating conditions like crevices and stagnant sea water can accelerate the crevice and pitting corrosion of uncoated stainless steel. Once the steel gets affected, the dissolution sets in rapidly, as re-passivation is almost impossible in this oxygen-poor environment.

A heavy zinc layer on austenitic steel offers excellent resistance to pitting and crevice corrosion, making it perfect for marine applications. That is why Bezinox<sup>®</sup> armoring wire provides a much more predictable and reliable coating lifetime and performance against uncoated austenitic stainless steel solutions. Even when the zinc layer gets damaged, the surrounding zinc will sacrifice itself, protecting the underlying stainless steel.



Non-coated 316L stainless steel flat wire, 6 months submerged in daily refreshed seawater at ambient temperature with CrevCorr crevice former.

#### Good processability and optimal shape

#### Sustainable & effective design solution

Thanks to the zinc coating, low carbon, and Bezinox<sup>®</sup> wires can be welded together without changing equipotential surface differences, positively impacting the lifetime of the joints. Bezinox<sup>®</sup> wire also protects the cable from overheating, which allows you to use the same design for the whole length of the power cable (offshore and the last mile onshore).

Moreover, Bezinox<sup>®</sup> wire is also suitable for marine protected areas (MPAs) as it doesn't impact marine species. You can choose from round or flat shapes depending on the final application.

For more technical details, see the Bekaert Bezinox<sup>®</sup> data sheet.



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