



## COPPER-CLAD STEEL (CCS)

**Copper clad steel (CCS) is widely used as new generation of communication lines and power transmission. Due to the skin effect, the signal travels on the outer edge of the conductor and it is possible to transmit the same high frequency signals, which can be transmitted with pure copper wire.**

CCS-wire is composed of a carbon steel core with a uniform copper layer to achieve the favoured conductivities. It combines the advantages both of a copper wire and of a steel wire; hence with CCS an improved performance such as electrical conduction and mechanical strength can be achieved. Furthermore, the copper layer acts as a corrosion protection for the steel wire.

Depending on the carbon content of the steel core and the subsequent heat treatment two different types of CCS can be differentiated. Each type then can be subdivided in different electrical conductivity grades.

### » **Hard drawn**

- » Grade 40 HS (high strength)
- » Grade 40 EHS (extra high strength)
- » Grade 30 HS
- » Grade 30 EHS

### » **Annealed / Soft Temper**

- » 21 % IACS (international annealed copper standard)
- » 30 % IACS
- » 40 % IACS

Depending on the particular application, copper clad steel is produced complying with the standards ASTM B 452, ASTM B 910 or ASTM B 227.



### How do our products stand out from those of the competition?

- » From ore to wire from one single source. Thus, maximum flexibility in all process steps.
- » Products developed on a customized basis to meet the highest requirements
- » Consistent and uniform tensile strengths
- » Worldwide operation with the necessary logistics
- » Environmental friendly and most advanced production facilities
- » Local sales hubs
- » Pioneering wire solutions for the energy transition



### Product portfolio CCS

#### Specifications

- » Diameter range from 0,3 to 3,0 mm (both types and conductivity grades)
- » Construction with 3, 7 or 19 strands

#### Quality Control

- » EN ISO 9001:2008

For detailed information regarding our certifications, visit our webpage [www.voestalpine.com/wire](http://www.voestalpine.com/wire)

