

Corus Special Strip

# High Strength Strip

Plated high strength cold rolled strip

The innovative alternative with process and product advantages compared to stainless steel, carbon steel and non-ferrous metals



Smart opportunities for high-quality stampings,  
formed and drawn parts

**Globally unique: gauges from 0,15 – 1,10 mm**

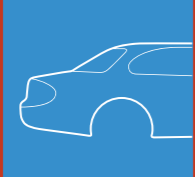
# Smart opportunities

With an innovative material:  
High Strength Strip by Corus Special Strip

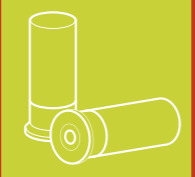
Battery



Automotive



Sporting Ammunition



Household



Electrical

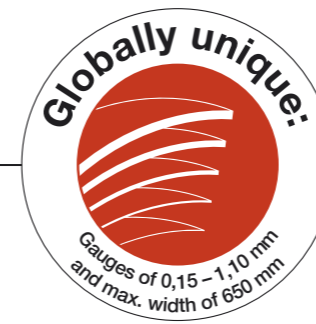


## Processing features

- Isotropic, fine-grained structure without rolling mill textures
- High strength with excellent formability
- Very good blanking and deep-drawing properties with low earing
- High work hardening
- Strength is enhanced by ageing briefly (bake hardening)
- Low carbon content for good welding and forming behaviour
- Mechanical properties comparable to stainless steel 1.4301 – 1.4310 (ASTM 301 – 305)

## Advantages

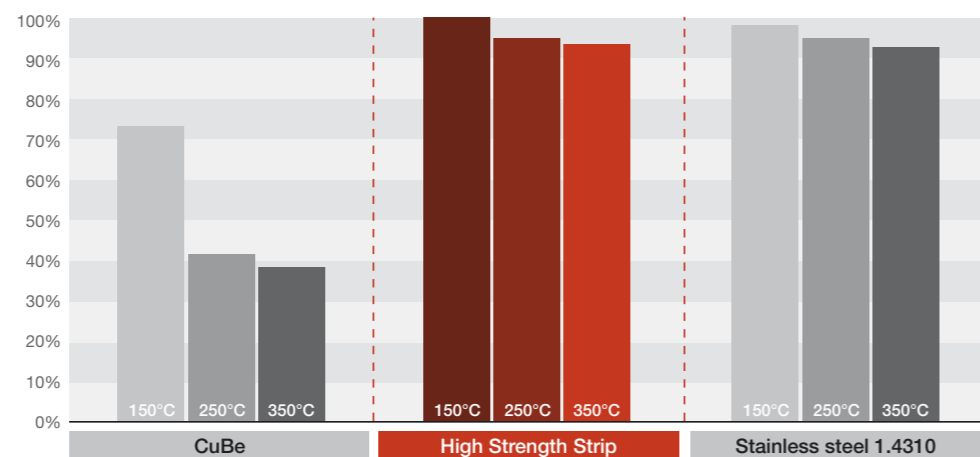
- Excellent formability in narrow radii
- Good vibration resistance with high endurance when subjected to dynamic loads
- High elasticity and clamping power
- Higher electrical conductivity compared to stainless steel
- Temperature stability up to 300°C
- Light weighting through use of thinner gauge compared to conventional deep drawing steels
- Process stability and product benefits through pre-plating
- Suitable in many applications as an alternative to stainless steels, non-ferrous metals and carbon steels
- Elimination of process steps such as downstream plating or annealing
- Improvement of output



## Lower costs without quality impairment: High Strength Strip for products with complex mechanical and surface-specific requirements

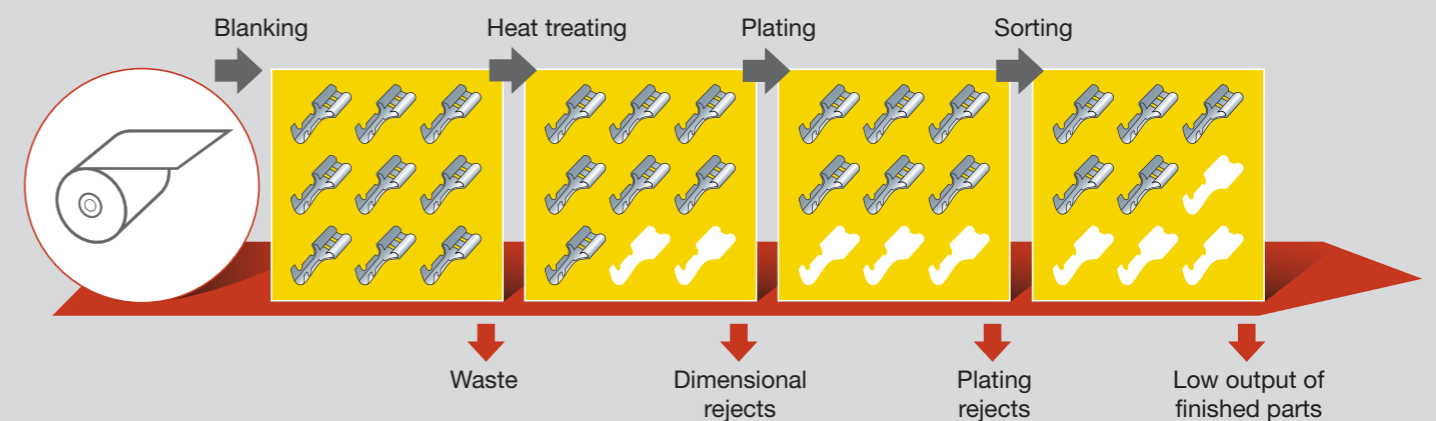
High Strength Strip combines the familiar Corus Special Strip high-grade surfaces and surface coatings with the properties of cold rolled strip. High Strength Strip is perfect for a vast range of applications and in many cases it delivers more value for money than stainless steels, non-ferrous metals and carbon steels.

Stress relaxation after 1000 h ageing (ASTM standard E323, method C3)

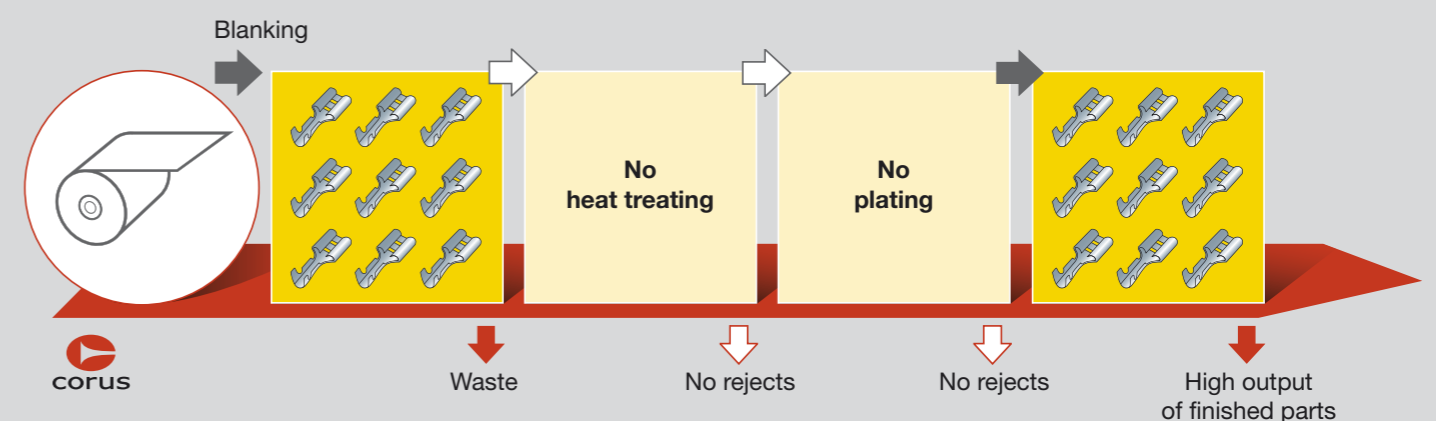


High Strength Strip demonstrates very low stress relaxation at elevated temperatures compared with high-temperature copper alloys.

### Conventional process



### High Strength Strip



# High Strength Strip

**High strength, pre-treated cold rolled strip with extremely low tolerances and unique dimensions: perfect for all stampings, formed and drawn parts that have to satisfy high requirements of strength**

## Standard dimensions and delivery formats

<b>Standards / tolerances</b>	Dimensions EN 10140 / ASTM A-109
<b>Treatment conditions</b>	Rm 500 – 1250 MPa (70 – 180 ksi)
<b>Surface finishes</b>	Standard roughness Ra ≤ 0.6 µm (25 µ")
<b>Coating thickness</b>	
- Front	Standard thickness 1 – 6 µm (40 – 240 µ")
- Back	Standard thickness 0.5 – 6 µm (20 – 240 µ")
<b>Thickness</b>	0,15 mm – 1,10 mm (0.006" – 0.043")
<b>Width</b>	max. 650 mm (28")
<b>Coil inside diameter</b>	300 mm – 500 mm/400 mm (12" – 20"/16")
<b>Specific coil weight</b>	max. 10kg / mm width of strip (PIW 500)

**Other grades, dimensions and specifications are available on request.**

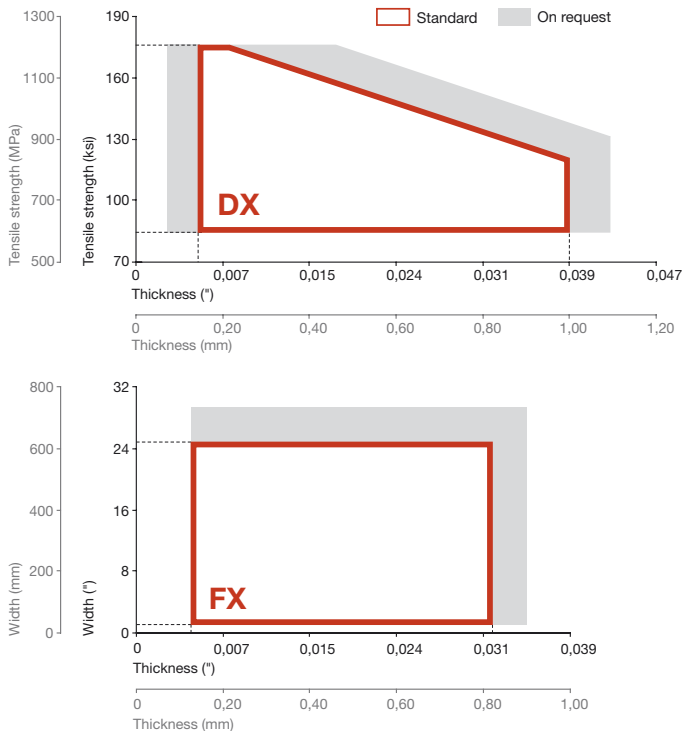
## Available surface finishes

Pre-treatment of special strip; 1-6µm (40-240µ") coating (one/both sides)

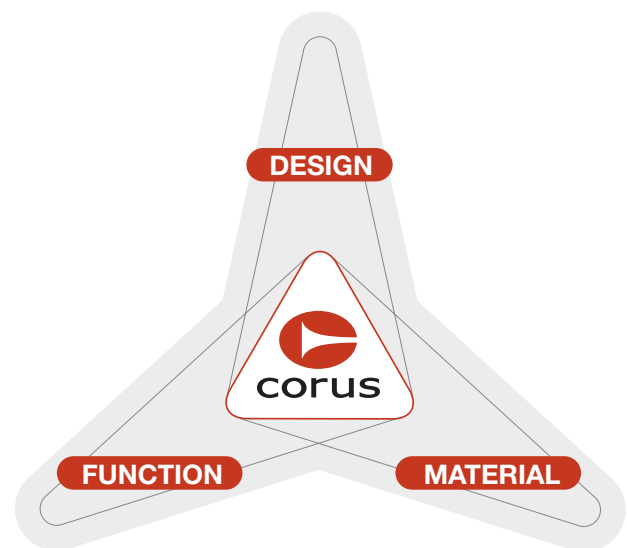
- Standard nickel (N)
- Diffusion annealed nickel (NT)
- Bright finish nickel (G)
- Zinc
- Nickel zinc
- Chrome
- Brass
- Functional coatings:
  - Brazeable layers (bronze, copper)
  - HYBREL (Ni-PTFE, Ni-Graphite). Infos: [www.hybrel.info](http://www.hybrel.info)

**Other options on request.**

## Large range of tensile strength



## Customer-specific solutions for optimum product features



Corus Special Strip optimises your processes so that you can deliver innovative products for your consumers. Contact us! We'll be happy to share our expertise with you.