

**MATERIAL**

100% recycled stainless steel in a short circuit and shaped by a concentrated solar oven specially developed for this type of product.

ENVIRONMENTAL IMPACT

0.041 kg CO₂-eq or 165 times less than conventional steel
6.8 kg CO₂-eq.

APPLICATIONS

Mainly used for the manufacture of parts that can be in prolonged contact with the skin (anti-allergenic), for medical applications (bio-compatibility) and especially for its aesthetic aspect which guarantees a perfect polishing (hyper regulated molecular mesh).

BATCH CERTIFICATE

Guarantee of traceability of raw materials used.

AVAILABLE FORMATS

- In bars: diameter 16mm, 45mm, 60mm, length 3 meters.
- In flats: 65mm x 10mm x 1000mm or 62mm x 6mm x 1000mm
- On order: by 1'000kg according to your custom dimensions.

PROCESS SPECIFICATIONS

Hot rolled bar, descaled, Hyper hardened, ground h9 for the round or nut, sandblasted for the flat.

DESIGNATION

AISI 316L, DIN 1.4441 ; X2CrNiMo18-15-3.

**CHEMICAL COMPOSITION
(AVERAGE DATA)**

C: 0.0170 Si: 0.3060 Mn: 1.8220 Ni: 14.7620 Cr: 17.5940 Mo : 2.7630 Cu: 0.3640
S: 0.0002 P: 0.0193 N: 0.0830.

GENERAL PROPERTIES

Very good machinability in conventional or automatic machines, very good formability for stamping, excellent polishability.

MECHANICAL PROPERTIES

At 20 degrees the elastic limit is between 200 and 400 MPa, the tensile strength between 500 and 950 MPa and the elongation between 25 and 40 %.

MICROSTRUCTURE

The average grain size sampling (inclusionary cleanliness) according to DIN 50/602 method M is between 39 and 44 microns.

SURFACE TREATMENTS

Electrolytic / chemical / laser / galvanic: very good.

JOINING TECHNIQUES

Resistance welding, all types of arc welding (MIG, TIG, submerged arc), laser or electron beam welding.

STAMPABILITY

Very good, with stress relieving annealing between 1'060 and 1'100 degrees (indicative values).

CORROSION RESISTANCE

This stainless steel remains one of the best of the austenitic family due to its high Molybdenum content, it complies with tests according to ISO 3851-21998 method A and ASTM A262-2015 method E.
Due to its medical bio-compatibility, it can be used as a prosthesis inside the body or as surgical tools.