

MATERIAL

100% recycled stainless steel in a short circuit and produced by a concentrated solar furnace 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 will be in prolonged contact with the skin (anti-allergenic), for medical applications (bio-compatibility) and especially for its aesthetic qualities which guarantee a perfect polish (hyper regulated molecular mesh).

BATCH CERTIFICATE	Guarantee of traceability of raw materials used.
AVAILABLE FORMATS	- Bar stock: diameters of 16mm, 45mm, 60mm, length 3 meters. - Flat stock: 65mm x 10mm x 1000mm or 62mm x 6mm x 1000mm - To order: by 1.000kg according to your custom dimensions.
PROCESS SPECIFICATIONS	Hot rolled bar, descaled, Hyper hardened, ground h9 for round and hex stock, 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.