



Grade	EN	Code	Austenitic Stainless Steel
Alloy 926	1.4529	X1NiCrMoCuN25-20-7	

Steel Properties

Alloy 926 (EN 1.4529 / UNS N08926) is a super-austenitic stainless steel developed for service in high-chloride and aggressive chemical environments. In addition to strong general and localized corrosion resistance, it offers high resistance to chloride-induced stress corrosion cracking. Providing performance above 904L, this grade is an economical alternative to more expensive nickel-based alloys in many applications. Its fully austenitic structure allows **Alloy 926** to retain good ductility, formability, and weldability.

Chemical Analysis (Alloy 926)

C %	Si %	Mn %	P %	S %	Cr %	Ni %	Mo %	Cu %	N %	Fe %
≤0,02	≤0,50	≤2,00	≤0,03	≤0,01	19,00–21,00	24,00–26,00	6,00–7,00	0,50–1,50	0,15–0,25	Bal.

Mechanical Properties (Solution annealed)

Product Form	Rp0.2 [MPa]	Rm [MPa]	Elongation [%]	Hardness [HB]	Density [g/cm ³]
Bar ≤300 mm	≥300	600–800	≥40	≤250	8,10

Application Areas

Industry	Most Common Products
Chemical and petrochemical	Acid piping, process tanks, heat exchangers
Oil and gas	Flexible pipes, pump lines, couplings
Offshore and marine	Firefighting lines, seawater filters, hydraulic piping systems
Desalination and water treatment	Evaporators, seawater piping, heat exchangers
Power generation	Condenser tubes, cooling-water lines, heat exchanger tubes
Environmental technology and flue-gas treatment	Scrubber components, absorber tanks, gas ducts
Pulp and paper	Bleaching tanks, bleaching-plant piping, heat exchangers
Salt production	Evaporators, crystallizers, brine piping
Mining and hydrometallurgy	Leach tanks, process piping, heat exchangers
Food and pharmaceutical	Process tanks, hygienic piping systems, heat exchangers



Explanation

Alloy 926 should be selected with attention not only to its high corrosion resistance but also to its behavior during fabrication. Because the material work-hardens rapidly during machining, the cutting tool should not be allowed to dwell on the surface; continuous feed with sufficient depth of cut and rigid machine tools are required. It has good weldability; however, a suitable nickel-based filler metal should be used and excessive heat input should be avoided to preserve corrosion resistance in the weld area. If the material loses strength following heavy forming or incorrect heat treatment, solution annealing should be applied again where required. After welding and fabrication, heat tint should be removed and the surface passivated to obtain the long service life expected from **Alloy 926**.

Designations

Alloy 926, EN 1.4529, DIN/Werkstoff No. 1.4529, X1NiCrMoCuN25-20-7, UNS N08926

Specifications

Form	ASTM Specification
Bar	ASTM B649

Alternative Grades

1. 254 SMO / F44 – EN 1.4547 / UNS S31254

As a member of the same 6Mo super-austenitic class, it is the closest alternative. It is particularly considered for high-chloride and seawater environments.

2. AISI 904L – EN 1.4539 / UNS N08904

With lower molybdenum and nitrogen contents, it is a comparatively more economical alternative. It is suitable where the service environment does not require the corrosion resistance level of Alloy 926.

3. AISI 317 – EN 1.4449 / UNS S31700

It is a lower-tier alternative that may be considered for less aggressive service conditions and where a lower alloy content is acceptable.