



6Mo / 1.4529

The austenitic stainless steel 6Mo was developed on basis of Alloy 904l / 1.4539. However, the molybdenum content at 6Mo was raised to 6.5%. 6Mo has excellent general corrosion resistance and improved resistance to pitting and crevice corrosion. The resistance to stress corrosion cracking is also increased. It is often referred as super austenitic stainless steel.

Gehe zu



Characteristics

1.4529 is characterized by:

- increased resistance to stress corrosion cracking compared to other austenitic stainless steels
- excellent general corrosion resistance in use of oxidizing as well as reducing media
- less tendency to form intermetallic phases compared to similar steels with only 18% nickel content
- very good resistance at pitting and crevice corrosion
- Approval for pressure vessels with temperatures between -196 and 400 ° C
- Building construction approval for components and fasteners made of stainless steel, German Institute of Structural Engineering, September '98

The material Alloy 6XN (UNS N08367) was developed in the USA. This has an almost identical composition and is used in the same applications. However, this material is not listed in the VdTÜV sheet and does not have its own Werkstoffnummer. An use in European pressure applications is therefore difficult.

The almost identical material is once used in Europe as 1.4529 and in the USA as UNS N08367. At Hempel, we have therefore stocked the material with double certification so that it can be used internationally.

Material Data Sheet

Werkstoffnummer	1.4529
Alloy	Alloy 926 Alloy 6XN
EN short name	X1 NiCrMoCuN25-20-7
UNS	UNS N08926 UNS N08367
Registered Tradenames	SixMo® Ultra 6XN® AL-6XN® Cronifer 1925hMo®
Standards	EN 10028-7 EN 10088-2
VdTÜV Werkblatt	502
ASTM / ASME	ASTM A240/ B688/ B625 ASME SA24/ SB688/ SB625

Main fields of application of alloy 926

1.4529 is mainly in following applications:

- Concentration and crystallization plants for salt production by evaporation
- Condenser pipes and pipeline systems in power plants with highly polluted cooling water
- Pump rods for oil delivery systems
- Evaporators, heat exchangers, tank linings etc. and phosphoric acid production
- Tanks for transport of aggressive chemical products
- Distribution systems and coolers for sulfuric acid plants
- Fire extinguishing systems, seawater filtration, hydraulic and injection systems of offshore technology
- Flexible pipes in the offshore industry

Flue gas desulphurisation plants (FGD)

Chemical composition

C	Si	Mn	P	S	Cr
≤ %	≤ %	≤ %	≤ %	≤ %	%
0-0.02	0-0.5	0-1.0	0-0.03	0-0.005	20,0-21,0

Ni	Mo	Cu	N	Fe
%	%	≤ %	≤ %	≤ %
24.5-25.5	6-6.8	0,80-1.0	0.18-0.2	rest

Hot forming

The material is hot formed within a temperature range of 1200 and 900 ° C and afterwards quenched rapidly in water or air.
The annealing takes place at 1200 ° C.
After hot forming, heat treatment for optimum corrosion resistance is recommended.

Material Outlet by Hempel

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