Material data sheet
1.4406 / X2CrNiMoN17-11-2
Stainless steel, austenitic

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Hochleistungswerkstoffe
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PROPERTIES:

- very good corrosion resistance
- very good weldability
- good forgeability
- good polishability
- good mechanical properties

MATERIAL SPECIFICATIONS

DIN EN 10088	1.4406
	X2CrNiMoN17-11-2
AISI	316LN
UNS	S31653
B.S.	316S61
AFNOR	Z3CND17-11Az
UNE	F.3542

CHEMICAL COMPOSITION (% by mass according to DIN EN 10088-3)

	C	Si	Mn	P	S	Cr	Mo	N	Ni
min.	-	-	-	-	-	16,50	2,00	0,120	10,00
max	0,03	1,00	2,00	0,045	0,015[a)]	18,50	2,50	0,220	12,50

MECHANICAL PROPERTIES at 20° C (solution annealed)

Hardness HB 30	Yield $R_{p0,2}$ (MPa)	Tensile strength R_m (MPa)	Elongation A	Modulus of elasticity
≤ 250 HB	≥ 280 N / mm²	580 - 800 N / mm²	≥ 40 %	200 kN / mm²

PHYSICAL PROPERTIES at 20° C

Density	Specific heat	Thermal conductivity	Electrical resistance	Magnetisability
8,00 kg/dm³	500 J/kg K	15 W/m K	0,75 (ohm) mm²/m	very low

WELDABILITY

TIG welding	suitable
MAG welding	suitable
Arc welding	suitable
UP welding	suitable
laser welding	suitable
gas fusion welding	partly

1.4406 can be welded with and without filler material.
Subsequent heat treatment is not necessary.

THERMAL TREATMENT

Hot forming temp	900 - 1200 °C
Solution annealing	1020 - 1120 °C

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