

MATERIALS

Mechanical data sheet

Material	1) Operating temperature range	Magnetic permeability
	[°C]	2) H at 200 [Oe]
304L (AISI) 1.4306 (DIN)	-250 +450	1.002-1.005
316L (AISI) 1.4435 (DIN)	-250 +450	1.002-1.005
AM 350 (AISI 633)	-75 / +250 4)(+450)	10-13
AM 350 hardened (AISI 633); SCT	-75 (+450)	50-120
Hastelloy C-276 2.4819 (DIN)	-250 / +650 4)(+750)	1.0002
Inconel 718 2.4668 (DIN)	-250 / +650 4)(+815)	1.0011
Titan Gr.2 3.7035 (DIN)	+20 / +250 3)(+450)	1.00005 (H bei 20 Oe)

1) Applications that deviate from room temperature have an influence to the mechanical features of the bellows. Please contact us.

3) Under certain conditions.

2) 1 [Oe] = 79.5775 [Am⁻¹]

MATERIALS

Analysis in % 1)

Material	Resistance to corrosions	Rank	Features / Applications
304L (AISI) 1.4306 (DIN)	Good resistance, except against hydrochlorics and halogen salts	+	Vacuum technology, cryogenics, machine construction
316L (AISI) 1.4435 (DIN)	Good for hydrochlorics and salt water	+	Vacuum technology, cryogenics, valves for high purity gas, medical application, vacuum-valves, feedthroughs
AM 350 (AISI 633)	Not resistant against intense	-	Good tensile strength and proof stress, slightly magnetic, for compensators, feedthroughs, valves
AM 350 SCT hardened (AISI 633)	inorganic acids		Good tensile strength and proof stress, aerospace applications
Hastelloy C-276 2.4819 (DIN)	High resistance against acids, chlorides and oxydation	++	Because of the high resistance main application is chemistry
Inconel 718 2.4668 (DIN)	high temperatures and acids	++	Because of high temperature resistance main applications are in aerospace and machine construction
Titan Gr.2 3.7035 (DIN)	Good resistance against salt water and chloride gas	+	Low weight, aerospace and medical applications

1) Analysis values in AISI

Rank
+ Application to recommend
- not to recommend