

## Material Designation

1.4435	DIN EN
S31603	UNS
Grade F 316L / 316L	AISI

## Standards

DIN EN 10088 - 3
DIN EN 10272
DIN EN 10250-4
ASTM A 182/A 182M
ASTM A 276/A 276M
ASTM A 479/A 479M
ANSI/NACE MR 0175/ISO15156-3

## Chemical Composition Mass-% acc. to DIN EN and ASTM

	C	Si	Mn	P	S	Cr	Mo	Ni	N
min.	-	-	-	-	-	17,0	2,5	12,5	-
max.	0,03	1,00	2,00	0,045	0,03	18,0	3,0	14,0	0,1

Also available as standard grade with Ni > 13%. Other customer specific restrictions upon request

## Properties

1.4435 is an austenitic stainless steel with high resistance against intergranular corrosion, pitting and crevice corrosion (PREN ~ 27).

The grade is non-magnetic (maximum relative permeability  $\mu_r < 1,01$ ).

It offers outstanding grindability and polishability.

Available as ESR or triple-melt version for maximum performance and surface quality.

## Delivery Condition

✘ Solution annealed (+AT), max. 22 HRC

## Application Area

Parts with requirements for high surface quality in corrosive environments. Non-magnetic parts for electronic devices.

## Typical Applications

- ✘ Medical industry (instruments, implants)
- ✘ H<sub>2</sub>-applications (e.g. automotive)
- ✘ Petrochemical industry
- ✘ Food and beverage industry
- ✘ Textiles
- ✘ Armatures
- ✘ Electronic equipment

## Mechanical Properties based on DIN EN and ASTM, longitudinal, at room temperature

Diameter	Yield strength		Tensile strength		Elongation	Reduction of area	Impact toughness
	[N/mm <sup>2</sup> ]	[ksi]	[N/mm <sup>2</sup> ]	[ksi]			
≤ 160	≥ 200	≥ 29	500 - 700	73 - 100	≥ 40	≥ 50	≥ 100
160 - 250	≥ 200	≥ 29	500 - 700	73 - 100	≥ 30 <sup>a</sup>	≥ 50	≥ 60 <sup>a</sup>

<sup>a</sup> transversal

## Heat Treatment Guideline values acc. to DIN EN 10088-3

	Temperature [°C]	Cooling medium
Solution annealing (+AT)	1020 - 1120	water, air

## Quality

- ISO 9001
- ISO 14001
- ISO 50001
- Approvals acc. to standards like ABS, BV, DNV ...
- Customer specific approval certificates

## Innovation

- Fully automated ultrasonic testing up to dia. 1000 mm
- CO<sub>2</sub>-reduction by innovative heat treatment solutions

## Flexibility

- Product range from fine wire to forging
- Directly from stock close at hand

## Individuality

- Dimensions
- Tolerances
- Surface qualities
- Delivery conditions

## Your personal contact:

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