

MATERIAL NUMBER 1.4435 · CLASS 1.4

SA-240TP316L

Material no. 1.4435

also listed as X2CrNiMo18-14-3

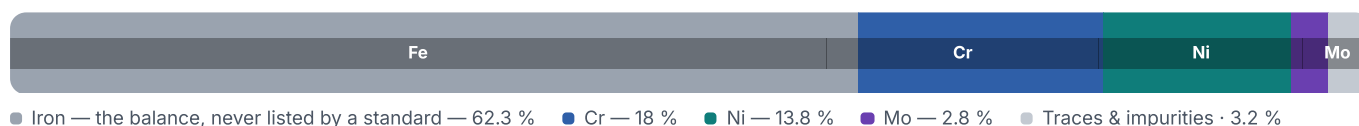
Chemical composition, mechanical and physical property values, and 99 standard designations from 19 regions.

DENSITY	OTHER DESIGNATIONS	PROPERTY VALUES
8 g/cm ³	99 in 19 regions	11 on file

Chemical composition

Mass fraction in %

What this alloy is



Logarithmic scale, 0.01 % to 100 % — every value here compares directly, decade by decade.



The scale is logarithmic, not the element's raw share of the alloy — the only honest way to fit 0.01 % and 100 % in one picture, and it means every value here can be compared with every other.

Predicted transformation temperatures

This grade's composition falls outside the published model's validated range (a low-alloy composition window), so no transformation temperature is predicted here.

Mechanical properties

20 values across 7 conditions

CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A %	HB	
Casting	390	175	33	–	
Solution heat treatment	–	–	–	183	
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %	Z %	HB
Forging, GOST 25054-81	470	176	35–40	45–55	–
03KH17N14M3 (03X17H14M3) , Forging GOST 25054-81	–	–	–	–	179
SOFT ANNEALED					HB
Soft annealed					215
SOLUTION ANNEALED					HB
Solution annealed					200
QUENCHING 1070 - 1100°C,COOLING WATER	RM N/mm ²	RE N/mm ²	A5 %		
Ø 60	490	196	40		
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %		
Sheet trick, GOST 7350-77	490	196	40		
CONDITION · DIMENSION	RM N/mm ²	RE N/mm ²	A5 %		
Sheet thin, GOST 5582-75	490	196	40		

Physical properties

2 values

CONDITION · DIMENSION	RHO g/cm ³	
20	8	
PROPERTY	VALUE	UNIT
Density	8	g/cm ³

Technological properties

PROPERTY	VALUE	UNIT
Weldability	without limitations.	

Designations across standards

99 designations · 6 documented as identical

United States		52	F738	astm
S31603	This grade's own name	uns	F836	astm
S31673		uns	F837	astm
30316L		aisi-sae	F879	astm
316L	This grade's own name	aisi-sae	SA-240TP316L	astm
J92800		aisi-sae		
S31603		aisi-sae		
TP316L		aisi-sae		
316LVM		astm		
A 182 Grade F316L		astm		
A 312 Grade TP316L		astm		
A 403 Grade WP316LN		astm		
A1022		astm		
A1049		astm		
A182		astm		
A213		astm		
A240		astm		
A249		astm		
A269		astm		
A270		astm		
A276		astm		
A312		astm		
A314		astm		
A336		astm		
A358		astm		
A403		astm		
A409		astm		
A473		astm		
A478		astm		
A479		astm		
A493		astm		
A511		astm		
A554		astm		
A580		astm		
A632		astm		
A666		astm		
A688		astm		
A774		astm		
A778		astm		
A793		astm		
A813		astm		
A814		astm		
A943		astm		
A965		astm		
A988		astm		
F2281		astm		
F593		astm		
F594		astm		

United Kingdom		8
316 S 11		bs
316S13		bs
316S13 LW 22		bs
316S14		bs
316S31	This grade's own name	bs
845 B		bs
LW 22		bs
LWCF 22		bs
Japan		6
SCS16		jis
SUS 316L		jis
SUS 316LFB		jis
SUS 316LTBS		jis
SUS 316LTP		jis
SUS F 316L		jis
Russia / CIS		5
03Ch17N14M3	This grade's own name	gost
03KH17N14M3		gost
03X17H14M2		gost
03X17H14M3		gost
cr.03X17H14M3		gost
France		4
Z2CND17.12		afnor
Z2CND17.13		afnor
Z3CND17-12-03		afnor
Z3CND18.14.03		afnor
Europe		3
1.4435		din-en
TP316L		din-en
X2CrNiMo18-14-3	This grade's own name	din-en
United States / Aerospace		3
5507		ams
5584		ams
5653		ams

China	3	Sweden	1
00Cr17Ni14Mo2	gb	2353	ss
00Cr17Ni14Mo3	gb		
OCr27Ni12Mo3	gb	Poland	1
		00H17N14M2	pn
Italy	3	Slovakia	1
X2CrNiMo 18-14-3 X2CrNiMo1713KG	uni	17 350	stn
X2CrNiMo17-13	uni		
X2CrNiMo1712	uni	Brazil	1
		316 L	abnt
Spain	2	Serbia	1
F.3533 This grade's own name	une	Č.4570.4	srps
F.3533-Z 2 CrNiMo 17-12-03	une		
Czechia	2	former Yugoslavia	1
17349	csn	Č.45704	jus
17350	csn		
International	1	Finland	1
Type19a	iso	752	sfs

Note on use. The data is compiled to the best of our knowledge from publicly available standards and manufacturer documentation. It replaces neither material testing nor an inspection document to EN 10204. Please request a mill certificate to EN 10204 2.1, 3.1 or 3.2 together with your enquiry. The standard in its current valid edition always prevails.

Enquiry about SA-240TP316L

Quotation, availability, mill certificate or a technical question — directly on the material page.

[Start an enquiry](#)

DATASHEET ONLINE	GRADE SEARCH	MATERIAL NO.	ISSUED
View the material page	Search all grades	1.4435	Aug 20, 2026