

TP 316Ti • UNS S31635 • 1.4571 • TPS-INOX 4571-316Ti

This is one of the family of 17%Cr12-13%Ni steels containing Mo of 2,0-2,4% stabilized with Ti which minimizes chromium carbide precipitation and improves resistance to intergranular corrosion. In the damp industrial or coastal atmospheres of Europe, they perform better than TP 304/304L and ferritic grades. In low temperature seawater they offer limited resistance to pitting but are susceptible to crevice attack. Their short and long-time properties at elevated temperatures are also superior to those of comparable TP 304/304L grades.

Material grade	Norm	Chemical composition • mass in %									
		C	Si	Mn	P	S	Cr	Ni	Mo	Ti	Sonst.
		max.	max.	max.	max.	max.	min. – max.	min. – max.	min. – max.		
1.4571	EN 10216-5	0,080	1,00	2,00	0,040	0,015	16,50 - 18,50	10,50 - 13,50	2,00 - 2,50	5x% C max. 0,70	-
TP316Ti	ASME SA / AS TM A 213	0,080	0,75	2,00	0,045	0,030	16,00 - 18,00	10,00 - 14,00	2,00 - 3,00	5x% C max. 0,70	N 0,10 max

Material grade	Norm	Mechanical properties and heat treatment					
		Rp 0,2 [MPa]	Rp 1,0 [MPa]	Rm [MPa]	A [%]	Härte	Wärmebehandlung
		min.	min.	min. – max.	min	HRB max.	
1.4571	EN 10216-5	210	245	500 - 730	35	-	lösungsgeglüht
TP316Ti	ASME SA / AS TM A 213	205	-	515	35	90	lösungsgeglüht

Tolerances				
AD - Rohr	AD	WD	special WT	ID
ab Ø4,550 mm	±0,050 mm	±0,150 mm	±0,100 mm	X
ab Ø9,530 mm	±0,050 mm	±0,100 mm	±0,080 mm	±0,050 mm
ab Ø30,001 mm***	±0,100 mm	±0,150 mm		±0,050 mm

*** to max. ø44,500 mm

- Tolerances acc. to DIN EN 10305-1 can be confirmed to OD 30mm
- Tolerances acc. to DIN EN ISO 1127 / DIN EN 10216-5 can be confirmed
- Tolerances acc. to ASTM can be confirmed generally

Abmessungsbereich*

Abmessungsspektrum

AD	WD	[mm]	0,89	1,00	1,20	1,24	1,65	1,82	2,00	2,11	2,30	2,35	2,50	2,60	2,64	2,77	2,87	3,00	3,20	3,25	3,60	3,85	3,91	4,00	4,40	5,50	6,35	7,00
[mm]	[inch]	[inch]	0,035			0,048	0,065	0,072		0,083		0,093			0,104	0,109	0,113		0,126	0,128			0,154				0,250	
6,00																												
6,35	0,250																											
7,00																												
7,50																												
8,00																												
9,00																												
9,53	0,375																											
10,00																												
11,00																												
12,70	0,500																											
13,00																												
15,00																												
15,88	0,625																											
16,00																												
16,80																												
17,15	0,675																											
18,00																												
19,00																												
19,05	0,750																											
20,00																												
21,34	0,840																											
22,00																												
22,23	0,875																											
23,00																												
25,00																												
25,40	1,000																											
26,00																												
26,67	1,050																											
28,00																												
30,00																												
31,75	1,250																											
32,00																												
33,40	1,315																											
36,00																												
38,10	1,500																											
42,00																												
44,50	1,750																											

