

TP 316LMo • UNS S31603 • 1.4435 • TPS-INOX 4435-316LMo

Due to the lower carbon content, intercrystalline corrosion resistance is also guaranteed after welding. The increased molybdenum content improves the general corrosion resistance, particularly to reduced acids and chloride-containing fluids. Weldability according all processes (except for autogenous welding) without subsequent heat treatment. TPS-INOX 4435-316LMO is used in the pharmaceutical industry, the synthetic fiber manufacturing industry, the pulp and cellulose industry and for chemical fertilizer production plants. This steel is polishable. TPS-INOX 4435 complies with the requirements of Basler standard 2. In case of continuous operation up to 400°C it is resistant to intercrystalline corrosion. The machinability of this grade is reduced.

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.		
1.4435	EN 10216-5	0,030	1,00	2,00	0,040	0,015	17,00 - 19,00	12,50 - 15,00	2,50 - 30,00	-	N 0,10 max
TP316LMo	ASME SA / AS TM A 213	0,040 - 0,10 0	1,00	2,00	0,045	0,030	18,00 - 20,00 0	8,00 - 11,00	-	-	-

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.	
1.4435	EN 10216-5	190	225	490 - 690	40	-	lösungsgeglüht
TP316LMo	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																											

