

Specifications of different grades of stainless steel used in HPLC columns

Cogent™ HPLC stainless steel column hardware is T1 grade, AISI 316 LC type. HPLC system tubing is AISI 316 (highlighted in green in the chart below, T2 grade. *We also offer fully coated stainless steel column hardware and PEEK column hardware to eliminate sample interaction with the surface sites of stainless steel.*

Elemental assays of the various stainless steel grades are given in the following table:

Steel			Analysis %				
SS	AISI	W.-nr	C	Cr	Ni	Mo	Övr
Martensitiska steel							
2303	420	1.4021	0,16-0,25	12,0-14,0			
2383	(430F)	1.4104	0,10-0,17	15,5-17,5		0,2-0,6	S
2387		1.4418	<0,05	15,0-17,0	4,0-6,0	0,8-1,5	
Ferrit-austenitiska steel							
2324	329	1.4460	<0,10	24,0-27,0	4,5-7,0	1,3-1,8	
2377	S31803	1.4462	<0,030	21,0-23,0	4,5-6,5	2,5-3,5	N
Austenitiska steel							
2333	304	1.4301	<0,05	17,0-19,0	8,0-11,0		
2337	321	1.4541	<0,08	17,0-19,0	9,0-12,0		Ti
2338	347	1.4550	<0,08	17,0-19,0	9,0-12,0		Nb
2346	303	1.4305	<0,12	17,0-19,0	8,0-10,0	<0,60	S
2352	304L	1.4306	<0,030	17,0-19,0	9,0-12,0		
2343	316	1.4436	<0,05	16,0-18,5	10,5-14,0	2,5-3,0	
2347	316	1.4401	<0,05	16,5-18,5	10,5-14,0	2,0-2,5	
2348	316L	1.4404	<0,030	16,5-18,5	11,0-14,0	2,0-2,5	
2350	316Ti	1.4571	<0,08	16,5-18,5	10,5-14,0	2,0-2,5	Ti
2353	316L	1.4435	<0,030	16,5-18,5	11,5-14,5	2,5-3,0	
2361	310S	1.4845	<0,08	24,0-26,0	19,0-22,0		
2368	S31815	1.4893	0,05-0,10	20,0-22,0	10,0-12,0		Si,N,Ce
2378	S31254	1.4547	<0,020	19,5-20,5	17,5-18,5	6,0-6,5	Cu,N
2562	N08904	1.4539	<0,025	19,0-21,0	24,0-26,0	4,0-5,0	Cu

Ti Grade 2

Carbon	0.1 max
Hydrogen	0.015 max
Iron	0.3 max
Nitrogen	0.03 max
Oxygen	0.25 max
Titanium	Balance

