

101.10 - Stainless Steels (disk form)

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

Description >>	C1151a Stainless Steel 23Cr-7Ni	C1153a Stainless Steel 17Cr-9Ni	C1154a Stainless Steel 19Cr-13Ni	1155a Stainless Steel (Cr 18 Ni 12 Mo 2)(AISI 316)	1171 Stainless Steel Cr 17-Ni 11-Ti 0.3 (AISI 321)	1172 Stainless Steel Cr 17-Ni 11-Nb 0.6 (AISI 348)	1219 Stainless Steel Cr16 - Ni2(AISI 431) (disk form)	1223 Chromium Steel	1295 Stainless Steel (SAE 405)	C1296 Stainless Steel	1297 Stainless Steel (SAE 201)
Unit of Issue >>	disk	disk	disk	disk	disk	disk	disk	disk	disk	disk	disk
Elemental Composition (mass fraction in %)											
Aluminum	(0.003)	(0.004)		(<0.01)			(0.001)	(<0.005)	(0.20)	0.035	(0.003)
Arsenic				<i>0.007</i>					(0.006)		(0.005)
Bismuth				(<0.0001)							
Boron				(0.002)			(<0.001)				
Calcium								(<0.0005)			
Carbon	0.034	0.225	0.100	0.0260	0.067	0.056	0.149	0.127	0.027	0.038	0.066
Chromium	22.59	16.70	19.31	17.803	17.50	17.40	15.64	12.64	13.52	27.90	16.69
Cobalt	0.033	0.127	0.38	0.225	0.097	0.12	(0.04)		0.020	0.026	0.127
Copper	0.385	0.226	0.44	0.2431	0.1205	0.105	0.162	0.081	0.260	0.056	0.442
Iron				64.71							
Lead	0.0039	0.006	0.017	(<0.005)			(<0.0001)		(0.0001)	(<0.001)	(<0.0001)
Magnesium								(<0.0005)			
Manganese	2.39	0.544	1.44	1.593	1.81	1.76	0.42	1.08	0.387	0.256	7.11
Molybdenum	0.79	0.24	0.068	2.188	0.167	0.22	0.164	0.053	0.023	3.43	0.331
Nickel	7.25	8.76	13.08	12.471	11.18	11.35	2.16	0.232	0.194	0.373	5.34
Niobium	(0.015)	(0.48)	(0.22)			0.65	(0.01)		(<0.0005)	0.20	(<0.009)
Nitrogen	(0.21)	(0.11)	(0.077)	<i>0.0428</i>			0.078	(0.05)			
Phosphorus	0.017	0.030	0.06	0.0271	(0.019)	0.025	0.026	0.018	0.022	0.024	0.038
Silicon	0.29	1.00	0.53	0.521	0.536	0.59	0.545	0.327	0.321	0.66	0.397
Sulfur	0.038	0.019	0.051	<i>0.0020</i>	(0.013)	0.014	0.001	0.329	0.0003	0.013	0.0033
Tantalum	(0.004)	(0.03)	(0.045)	(<0.0001)		<0.001			(<0.001)	(<0.001)	(<0.001)
Tin				<i>0.0069</i>			(0.008)	(0.004)	(0.02)	(<0.01)	(<0.010)
Titanium		(0.013)	(0.004)	0.0039	0.346		(<0.001)		(0.01)	0.23	(<0.0004)
Tungsten				0.0809	(0.012)		(0.02)		(0.002)	(<0.01)	(0.03)
Vanadium	0.040	0.176	0.135	0.0725			0.056	0.068	0.082	0.134	0.080
Zirconium		(0.0001)	(0.001)	(<0.003)				(0.0001)			

- Certified values are normal font

- Non-certified or reference values are italicized

- Non-certified values in parentheses are for information only