

Mechanical Properties of Stainless Steel

Common Name	Condition	0.2% Proof Strength	Tensile Strength	Tensile Elongation (%min)		Hardness	Rockwell	Vickers
		MPa	MPa			Brinell	Hardness	Hardness
		Min	Min			HB (max)	HRB (max)	HV (max)
				¾1.2mm	>1.2mm			
S 201-2	Annealed	310	660	40	40	-	100	240
S 30100	Annealed	205	520	40	40	219	95	210
S 30100	1/4 hard	520	860	25	25	-	-	-
S 30100	1/2 hard	760	1030	15	18	-	-	-
S 30100	3/4 hard	930	1210	10	12	-	-	-
S 30100	Full hard	965	1280	8	9	-	-	-
S 30200	Annealed	205	520	40	40	202	92	210
S 30300	Annealed	240	585	50	50	-	-	-
S 30400	Annealed	205	520	40	40	202	92	210
S 304L	Annealed	170	485	40	40	183	88	210
+	Annealed	310	600	40	40	-	-	-
S 31000	Annealed	205	520	40	40	217	95	225
S 31600	Annealed	205	520	40	40	219	95	225
S 316L	Annealed	170	485	40	40	217	95	225
S 316Ti	Annealed	205	520	40	40	217	95	225
S 31700	Annealed	205	515	35	35	217	95	-
S 317L	Annealed	205	515	40	40	217	95	-
+	Annealed	450	620	25	25	290	32RC	-
S 32100	Annealed	205	520	40	40	217	95	210
S 34700	Annealed	205	515	40	40	201	92	-
+	Annealed	400	600	25	25	290	31RB	-
+	Annealed	550	800	25	25	310	32RB	-
S 40900	Annealed	205	380	20	22	-	80	-
S 41000	Annealed	205	450	20	22	217	95	210
S 41600	Annealed	276	517	30	30	-	-	-
S 42000	Annealed	-	520	-	12	-	-	-
S 43000	Annealed	205	450	20	22	183	88	210
S 43100	Cold Finished	-	965 max	-	-	-	-	-
S 440A	Cold Finished	-	-	-	-	-	-	-
S 440C	Cold Finished	-	-	-	-	-	-	-
S 444	Annealed	310	415	20	20	217	95	200
S 446	Annealed	280	480	20	-	-	-	-
17-4PH	H1025	1000	1070	12	12	331	-	-
+	Annealed	550	750	25	25	270	28HRC	-
3CR12	Annealed	280	460	18	18	220	-	-
+	Annealed	220	490	35	35	-	90	-
Cromanite	Annealed	450	800	40	40	250	-	-