

Item	Material classification	Material and variants	Applied standard
1	Carbon Steel	4140	ASTM A29/A29M-2020
2	Carbon Steel	WCA	ASTM A216/A216M-2018
3	Carbon Steel	WCB	ASTM A216/A216M-2018
4	Carbon Steel	WCC	ASTM A216/A216M-2018
5	Carbon Steel	WC1	ASTM A217/A217M-2020
6	Carbon Steel	WC4	ASTM A217/A217M-2020
7	Carbon Steel	WC5	ASTM A217/A217M-2020
8	Carbon Steel	WC6	ASTM A217/A217M-2020
9	Carbon Steel	WC9	ASTM A217/A217M-2020
10	Carbon Steel	S1	ASTM A681-08
11	Carbon Steel	S2	ASTM A681-08
12	Carbon Steel	S4	ASTM A681-08
13	Carbon Steel	S5	ASTM A681-08
14	Carbon Steel	S6	ASTM A681-08
15	Carbon Steel	S7	ASTM A681-08
16	Carbon Steel	LCA	ASTM A352/A352M-2021
17	Carbon Steel	LCB	ASTM A352/A352M-2021
18	Carbon Steel	LCC	ASTM A352/A352M-2021
19	Carbon Steel	16MnCr5(1.7131)	DIN EN 10263-3: 2018
20	Carbon Steel	16MnCr5(1.7131)	DIN EN 10084: 2008
21	Carbon Steel	20MnCr5(1.7147)	DIN EN 10084: 2008
22	Carbon Steel	18CrMo4(1.7243)	DIN EN 10084: 2008
23	Carbon Steel	42CrMo4(1.7225)	EN 10083-3:2014
24	Carbon Steel	30CrNiMo8(1.6580)	EN 10083-3:2014
25	Carbon Steel	34CrNiMo6(1.6582)	EN 10083-3:2014
26	Carbon Steel	GS-52(1.0552)	DIN 1681: 1985
27	Carbon Steel	GS C15	DIN 17210
28	Carbon Steel	S235JR(1.0038)	DIN 10025-2: 2019
29	Carbon Steel	S355JR(1.0045)	DIN 10025-2: 2019
30	Carbon Steel	GP240GH(1.0619)	BS EN 10213: 2016
31	Carbon Steel	90MnCrV8(1.2842)	EN ISO 4957:2018
32	Carbon Steel	S45C	JIS G 4051: 2009
33	Carbon Steel	SCM440	JIS G 4053: 2008
34	Carbon Steel	SNCM220	JIS G 4053: 2008
35	Carbon Steel	SCW410	JIS G 5102: 1991
36	Carbon Steel	SCPH2	JIS G 5151: 1991
37	Carbon Steel	Y30	GB/T8731-2008
38	Carbon Steel	ZG 200-400	GB/T 11352-2009
39	Carbon Steel	ZG 230-450	GB/T 11352-2009
40	Carbon Steel	ZG 270-500	GB/T 11352-2009
41	Carbon Steel	ZG 310-570	GB/T 11352-2009
42	Carbon Steel	ZG 340-640	GB/T 11352-2009
43	Carbon Steel	S355J0(1.0553)	EN 10025-2:2019
44	Carbon Steel	GE300(1.0558)	EN 10293-2015
45	Carbon Steel	1050	ASTM A29/A29M-2020
46	Carbon Steel	GE240(1.0446)	EN 10293-2015
47	Carbon Steel	C12A	ASTM A217/A217M-2020
48	Carbon Steel	G34CrM04(1.7230)	EN 10293-2015
49	Carbon Steel	SCPH22	JIS G 5151: 1991
50	Carbon Steel	SCPH23	JIS G 5151: 1991
51	Carbon Steel	10B	ASTM A487/A487M-2020
52	Carbon Steel	AS2074/C3	AS 2074-2003

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53	Austenite stainless steel	GX2CrNiMo19-11-2 (1.4409)	EN 10213:2016
54	Austenite stainless steel	GX5CrNiNb19-11 (1.4552)	EN 10213:2016
55	Austenite stainless steel	GX5CrNiMoNb19-11-2 (1.4581)	EN 10213:2016
56	Austenite stainless steel	GX2NiCrMo28-22-2 (1.4458)	EN 10213:2016
57	Austenite stainless steel	G-X6CrNi18-9 (1.4308)	DIN 17445: 1984
58	Austenite stainless steel	G-X6CrNiMo18-10 (1.4408)	DIN 17445: 1984
59	Austenite stainless steel	G-X6CrNiMo18-12 (1.4437)	DIN 17445: 1984
60	Austenite stainless steel	G-X2CrNiMoN17-13-4 (1.4446)	DIN 17445: 1984
61	Austenite stainless steel	G-X6CrNiMo17-13 (1.4448)	DIN 17445: 1984
62	Austenite stainless steel	G-X7CrNiMoCuNb18-18 (1.4585)	DIN 17445: 1985
63	Austenite stainless steel	06Cr18Ni11Ti	GB/T 1220-2007
64	Austenite stainless steel	06Cr19Ni10	GB/T 1220-2007
65	Austenite stainless steel	022Cr19Ni10	GB/T 1220-2007
66	Austenite stainless steel	06Cr17Ni12Mo2	GB/T 1220-2007
67	Austenite stainless steel	022Cr17Ni12Mo2	GB/T 1220-2007
68	Austenite stainless steel	SUS201	JIS G 4303: 2012
69	Austenite stainless steel	SCS13A	JIS G 5121: 2003
70	Austenite stainless steel	SCS14	JIS G 5121: 2003
71	Austenite stainless steel	SCS14A	JIS G 5121: 2003
72	Austenite stainless steel	SCS16	JIS G 5121: 2003
73	Austenite stainless steel	SCS16A	JIS G 5121: 2003
74	Austenite stainless steel	SCS19A	JIS G 5121: 2003
75	Austenite stainless steel	SCS23	JIS G 5121: 2003
76	Austenite stainless steel	GX40CrNiSiNb35-25 (1.4852)	DIN 17465:1993
77	Austenite stainless steel	X1NiCrMoCu25-20-5 (1.4539)	EN 10088-2: 2014
78	Austenite stainless steel	GX2NiCrMoCu25-20-5 (1.4584)	EN 10283:2019
79	Austenite stainless steel	X1NiCrMoCuN25-20-7 (1.4529)	EN 10297-2-2005
80	Austenite stainless steel	GX5CrNi19-10 (1.4308)	EN 10283:2019
81	Austenite stainless steel	GX2CrNi19-11 (1.4309)	EN 10283:2019
82	Austenite stainless steel	GX5CrNiMo19-11-2 (1.4408)	EN 10283:2019
83	Austenite stainless steel	GX2CrNiMo19-11-2 (1.4409)	EN 10283:2019
84	Austenite stainless steel	GX5CrNiNb19-11 (1.4552)	EN 10283:2019
85	Austenite stainless steel	GX5CrNiMoNb19-11-2 (1.4581)	EN 10283:2019
86	Austenite stainless steel	X1NiCrMoCu31-27-4 (1.4563)	EN 10088-2: 2014
87	Austenite stainless steel	SCS13	JIS G 5121: 2003
88	Austenite stainless steel	X2CrNiMo17-12-2 (1.4404)	EN 10028-7: 2007
89	Austenite stainless steel	CF3M	ASTM A744/A744M-21
90	Austenite stainless steel	X8CrNiS18-9 (1.4305)	EN 10088-3: 2014
91	Austenite stainless steel	X5CrNi18-10 (1.4301)	EN 10088-3: 2014
92	Austenite stainless steel	X2CrNi19-11 (1.4306)	EN 10088-3: 2014
93	Austenite stainless steel	X2CrNiMo17-12-2 (1.4401)	EN 10088-3: 2014
94	Austenite stainless steel	X2CrNiMo17-12-2 (1.4404)	EN 10088-3: 2014
95	Austenite stainless steel	X5CrNiN19-9 (1.4315)	EN 10088-3: 2014
96	Austenite stainless steel	X2CrNiMo18-14-3 (1.4435)	EN 10088-3: 2014
97	Austenite stainless steel	X6CrNiMoTi17-12-2 (1.4571)	EN 10088-3: 2014
98	Austenite stainless steel	CF8C	ASTM A351/A351M-18
99	Austenite stainless steel	CF3	ASTM A743/A743M-21
100	Austenite stainless steel	CF8	ASTM A743/A743M-21
101	Austenite stainless steel	CF3M	ASTM A743/A743M-21
102	Austenite stainless steel	CF8M	ASTM A743/A743M-21
103	Austenite stainless steel	ZG03Cr19Ni11	GB/T 2100-2017
104	Austenite stainless steel	ZG07Cr19Ni9	GB/T 2100-2002

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105	Austenite stainless steel	ZG07Cr19Ni10	GB/T 2100-2017
106	Austenite stainless steel	ZG03Cr19Ni11Mo2	GB/T 2100-2017
107	Austenite stainless steel	ZG07Cr19Ni11Mo2	GB/T 2100-2017
108	Austenite stainless steel	GX40CrNiSi25-20 /1.4837	EN 10295-2002
109	Martensitic stainless steel	403	ASTM A473-19
110	Martensitic stainless steel	410	ASTM A473-19
111	Martensitic stainless steel	420	ASTM A473-19
112	Martensitic stainless steel	429	ASTM A240/A240M-2020
113	Martensitic stainless steel	430	ASTM A240/A240M-2020
114	Martensitic stainless steel	431	ASTM A473-19
115	Martensitic stainless steel	440A	ASTM A473-19
116	Martensitic stainless steel	440B	ASTM A473-19
117	Martensitic stainless steel	440C	ASTM A473-19
118	Martensitic stainless steel	630(17-4PH)	ASTM A693/693M-2016
119	Martensitic stainless steel	631	ASTM A693/693M-2016
120	Martensitic stainless steel	632	ASTM A693/693M-2016
121	Martensitic stainless steel	633	ASTM A693/693M-2016
122	Martensitic stainless steel	634	ASTM A693/693M-2016
123	Martensitic stainless steel	635	ASTM A693/693M-2016
124	Martensitic stainless steel	CA15	ASTM A743/A743M-21
125	Martensitic stainless steel	CA15M	ASTM A743/A743M-21
126	Martensitic stainless steel	CA6NM	ASTM A743/A743M-21
127	Martensitic stainless steel	X12Cr13 (1.4006)	EN 10088-2: 2014
128	Martensitic stainless steel	X20Cr13 (1.4021)	EN 10088-2: 2014
129	Martensitic stainless steel	X30Cr13 (1.4028)	EN 10088-2: 2014
130	Martensitic stainless steel	X39Cr13 (1.4031)	EN 10088-2: 2014
131	Martensitic stainless steel	X46Cr13 (1.4034)	EN 10088-2: 2014
132	Martensitic stainless steel	420M	ACL螺套专用
133	Martensitic stainless steel	X38CrMo14 (1.4419)	EN 10088-2: 2014
134	Martensitic stainless steel	X55CrMo14 (1.4110)	EN 10088-2: 2014
135	Martensitic stainless steel	X50CrMoV15 (1.4116)	EN 10088-3: 2014
136	Martensitic stainless steel	X70CrMo15 (1.4109)	EN 10088-3: 2014
137	Martensitic stainless steel	X40CrMoVN16-2 (1.4123)	EN 10088-3: 2014
138	Martensitic stainless steel	X39CrMo17-1 (1.4122)	EN 10088-3: 2014
139	Martensitic stainless steel	X105CrMo17 (1.4125)	EN 10088-3: 2014
140	Martensitic stainless steel	X90CrMoV18 (1.4112)	EN 10088-3: 2014
141	Martensitic stainless steel	X2CrNiMoV13-5-2(1.4415)	EN 10088-3: 2014
142	Martensitic stainless steel	X3CrNiMo13-4 (1.4313)	EN 10088-3: 2014
143	Martensitic stainless steel	X4CrNiMo16-5-1(1.4418)	EN 10088-3: 2014
144	Martensitic stainless steel	X5CrNiCuNb16-4 (1.4542)	EN 10088-3: 2014
145	Martensitic stainless steel	GX8CrNi12 (1.4107)	BS EN 10213: 2016
146	Martensitic stainless steel	GX3CrNi13-4 (1.6982)	BS EN 10213: 2016
147	Martensitic stainless steel	GX4CrNi13-4 (1.4317)	BS EN 10213: 2016
148	Martensitic stainless steel	GX4CrNiMo16-5-1 (1.4405) (1.4318)	BS EN 10213: 2016
149	Martensitic stainless steel	G-X8CrNi13 (1.4008)	DIN 17445: 1984
150	Martensitic stainless steel	G-X20Cr14 (1.4027)	DIN 17445: 1984
151	Martensitic stainless steel	G-X22CrNi17 (1.4059)	DIN 17445: 1984
152	Martensitic stainless steel	G-X5CrNi13-4 (1.4313)	DIN 17445: 1984
153	Martensitic stainless steel	G-X40CrNi27-4 (1.4340)	DIN 17445: 1984
154	Martensitic stainless steel	G-X5CrNiMo16-5 (1.4405)	DIN 17445: 1984
155	Martensitic stainless steel	06Cr13	GB/T 1220-2007
156	Martensitic stainless steel	12Cr13	GB/T 1220-2007

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157	Martensitic stainless steel	20Cr13	GB/T 1220-2007
158	Martensitic stainless steel	30Cr13	GB/T 1220-2007
159	Martensitic stainless steel	40Cr13	GB/T 1220-2007
160	Martensitic stainless steel	05Cr15Ni5Cu4Nb	GB/T 1220-2007
161	Martensitic stainless steel	05Cr17Ni4Cu4Nb	GB/T 1220-2007
162	Martensitic stainless steel	07Cr17Ni7Al	GB/T 1220-2007
163	Martensitic stainless steel	07Cr15Ni7Mo2Al	GB/T 1220-2007
164	Martensitic stainless steel	ZG15Cr13	GB/T 2100-2017
165	Martensitic stainless steel	ZG20Cr13	GB/T 2100-2017
166	Martensitic stainless steel	ZG10Cr12NiMo	GB/T 2100-2017
167	Martensitic stainless steel	ZG06Cr12Ni4	GB/T 2100-2017
168	Martensitic stainless steel	ZG06Cr16Ni5Mo	GB/T 2100-2017
169	Martensitic stainless steel	GX22CrNi17 (1.4059)	DIN 17445: 1984
170	Martensitic stainless steel	GX4CrNi13-4 (1.4317)	BS EN 10283:2019
171	Martensitic stainless steel	CB7Cu-2-H900	ASTM A747/A747M-2018
172	Martensitic stainless steel	SCS24	JIS G5121-2003
173	Martensitic stainless steel	CA6NM-classB	ASTM A487/A487M-2020
174	Martensitic stainless steel	CB7Cu-1	ASTM A747/A747M-2018
175	Martensitic stainless steel	CA15	ASTM A217/A217M-20
176	Martensitic stainless steel	ZG10Cr13Ni2Mo	GB/T 2100-2017
177	Martensitic stainless steel	CA6NM-classA	ASTM A487/A487M-2020
178	Martensitic stainless steel	GX7CrNiMo12-1 (1.4008)	EN 10283: 2019
179	Martensitic stainless steel	SCS1	JIS G5121-2003
180	Martensitic stainless steel	CA40	ASTM A743/A743M-21
181	Martensitic stainless steel	CB30	ASTM A743/A743M-21
182	Duplex stainless steel	2205	ASTM A240/A240M-2020
183	Duplex stainless steel	2304	ASTM A240/A240M-2020
184	Duplex stainless steel	255	ASTM A240/A240M-2020
185	Duplex stainless steel	2507	ASTM A240/A240M-2020
186	Duplex stainless steel	329	ASTM A240/A240M-2020
187	Duplex stainless steel	CD4MCu/1A	ASTM A890/A890M-2018
188	Duplex stainless steel	CD4MCuN/1B	ASTM A890/A890M-2018
189	Duplex stainless steel	CD3MCuN/1C	ASTM A890/A890M-2018
190	Duplex stainless steel	CE8MN/2A	ASTM A890/A890M-2018
191	Duplex stainless steel	CD6MN/3A	ASTM A890/A890M-2018
192	Duplex stainless steel	CD3MN/4A /J92205	ASTM A890/A890M-2018
193	Duplex stainless steel	CE3MN/5A	ASTM A890/A890M-2018
194	Duplex stainless steel	CE3MN/5A(PREN > 43)	ASTM A890/A890M-13
195	Duplex stainless steel	CD3MWCuN/6A	ASTM A890/A890M-2018
196	Duplex stainless steel	X3CrNiMoN27-5-2 (1.4460)	EN 10088-3: 2014
197	Duplex stainless steel	X2CrNiMoN22-5-3 (1.4462)	EN 10088-2: 2014
198	Duplex stainless steel	X2CrNiCuN23-4 (1.4655)	EN 10088-2: 2014
199	Duplex stainless steel	X2CrNiMoCuN25-6-3(1.4507)	EN 10088-2: 2014
200	Duplex stainless steel	X2CrNiMoCuWN25-7-4(1.4501)	EN 10088-2: 2014
201	Duplex stainless steel	X2CrNiMoSi18-5-3(1.4424)	EN 10088-2: 2014
202	Duplex stainless steel	X2CrNiN23-4(1.4362)	EN 10088-2: 2014
203	Duplex stainless steel	X2CrNiMoN25-7-4 (1.4410)	EN 10088-2: 2014
204	Duplex stainless steel	GX2CrNiMoCuN25-6-3-3 (1.4517)	EN 10213:2016
205	Duplex stainless steel	GX2CrNiMoN22-5-3 (1.4470)	EN 10213:2016
206	Duplex stainless steel	GX2CrNiMoN26-7-4 (1.4469)	EN 10213:2016
207	Duplex stainless steel	GX2CrNiMoN25-7-3 (1.4417)	EN 10213:2016
208	Duplex stainless steel	1.4469(PREN≥41)	EN 10213:2016

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209	Duplex stainless steel	GX4CrNiMoN26-5-2 (1.4474)	EN 10283:2019
210	Duplex stainless steel	1.4474(PREN > 32)	EN 10283:2019
211	Duplex stainless steel	1.4474(PREN > 33)	EN 10283:2019
212	Duplex stainless steel	GX2CrNiMoCuN25-6-3-3 (1.4517)	EN 10283:2019
213	Duplex stainless steel	GX2CrNiMoN22-5-3 (1.4470)	EN 10283:2019
214	Duplex stainless steel	GX2CrNiMoN26-7-4 (1.4469)	EN 10283:2019
215	Duplex stainless steel	1.4469(PREN≥40)	EN 10283:2019
216	Duplex stainless steel	SCS11	JIS G 5121: 2003
217	Duplex stainless steel	CD4MCuN/1B	ASTM A995/A995M-2020
218	Duplex stainless steel	CE8MN/2A	ASTM A995/A995M-2020
219	Duplex stainless steel	CD6MN/3A	ASTM A995/A995M-2020
220	Duplex stainless steel	CD3MN/4A/J92205	ASTM A995/A995M-2020
221	Duplex stainless steel	CE3MN/5A	ASTM A995/A995M-2020
222	Duplex stainless steel	CD3MWCuN/6A	ASTM A995/A995M-2020
223	Duplex stainless steel	2205(PREN≥35.5)	ASTM A240/A240M-2020
224	Duplex stainless steel	1.4469(PREN > 39)	EN 10283:2019
225	Duplex stainless steel	CD3MN/4A(PREN > 34)	ASTM A890/A890M-2018
226	Duplex stainless steel	CD3MN/4A(PREN > 34)	ASTM A995/A995M-2020
227	Duplex stainless steel	ZG03Cr22Ni6Mo3N	GB/T 2100-2017
228	Duplex stainless steel	GX2CrNiMoN25-6-3(1.4468)	EN 10283:2019
229	Duplex stainless steel	1.4469(PREN≥42)	EN 10213:2016
230	Duplex stainless steel	CE3MN/5A(PREN≥41)	ASTM A995/A995M-2020
231	Duplex stainless steel	CE3MN/5A(PREN≥40.5)	ASTM A995/A995M-2020
232	Ni-based Alloy	N08020/ALLOY20	ASTM B473-07 (2018)
233	Ni-based Alloy	CW12MW/N30002	ASTM A494/A494M-2015
234	Ni-based Alloy	N06030/G-30	ASTM B581-17(2023)
235	Ni-based Alloy	CW6M/N30107	ASTM A494/A494M-2015