



Comparison Table for Common Iron & Steel Grades in China and Abroad (Section 1: Cast Iron and Steel)

Table 1 Approximate comparison for **gray cast irons**

Serial No.	China GB/T 9439-2010	Russian ГОСТ 1412-1985	Japan JIS G5501: 1995	U.S.A. ASTM A48/A48M: 2003		ISO ISO 185: 2005	EU EN 1561: 1997
1	HT 100	CЧ10	FC 100	No.20A F11401		JL/100	GJL-100 JL-1010
2	HT 150	CЧ15	FC 150	No.25A F11701		JL/150	GJL-150 JL-1020
3	HT 200	CЧ20	FC 200	No.30A F12101		JL/200	GJL-200 JL-1030
4	HT 250	CЧ25	FC 250	No.35A F12401	No.40A F12801	JL/250	GJL-250 JL-1040
5	HT 300	CЧ30	FC 300	No.45A F13301		JL/300	GJL-300 JL-1050
6	HT 350	CЧ35	FC 350	No.50A F13501		JL/350	GJL-350 JL-1060

Table 2 Approximate comparison for **spheroidal graphite cast irons**

Serial No.	China GB/T 1348-2009	Russian ГОСТ 7293-1985	Japan JIS G5502: 2001	U.S.A. ASTM A536: 1984		ISO ISO 1083: 2004	EU EN 1563: 1997 +A1: 2002
1	QT400-18	BЧ40	FCD400-18	60-40-18 F32800		JS/400-18	GJS400-18 JS1020
2	QT400-15	BЧ40	FCD400-15	60-42-10 F32900		JS/400-15	GJS400-15 JS1030
3	QT450-10	BЧ45	FCD450-10	65-42-10 F33100		JS/450-10	GJS450-10 JS1040
4	QT500-7	BЧ50	FCD500-7	70-50-05		JS/500-7	GJS500-7 JS1050
5	QT600-3	BЧ60	FCD600-3	80-60-03 F34100		JS/600-3	GJS600-3 JS1060
6	QT700-2	BЧ70	FCD700-2	100-70-03 F34800		JS/700-2	GJS700-2 JS1070
7	QT800-2	BЧ80	FCD800-2	120-90-02 F36200		JS/800-2	GJS800-2 JS1080
8	QT900-2	BЧ100	-	120-90-02 F36200		JS/900-2	GJS900-2 JS1080

**Table 3** Approximate comparison for **white heart malleable cast irons**

Serial No.	China GB/T 9440-2010	Russian	Japan JIS G5705: 2000	U.S.A.	ISO ISO 5922: 2005	EU EN 1562: 1997
1	KTB350-04	-	FCMW34-04	-	JMW/350-4	GJMW350-4 JM1010
2	KTB380-12	-	FCMW38-12	-	JMW/360-12	-
3	KTB400-05	-	FCMW40-05	-	JMW/400-5	GJMW400-5 JM1030
4	KTB450-07	-	FCMW45-07	-	JMW/450-7	GJMW450-7 JM1040

Table 4 Approximate comparison for **black heart malleable cast irons**

Serial No.	China GB/T 9440-2010	Russian ГОСТ 1215-1979	Japan JIS G5705: 2000	U.S.A. ASTM A47/A47M: 1999	ISO ISO 5922: 2005	EU EN 1562: 1997
1	KTH300-06	KЧ30-06	FCMB30-06	-	JMB/300-6	GJMB300-6 JM1000
2	KTH330-08	KЧ33-08	FCMB31-08	22010	-	GJMB350-10 JM1030
3	KTH350-10	KЧ35-10	FCMB35-10	32510 F22200	JMB/350-10	GJMB350-10 JM1030

Table 5 Approximate comparison for **pearlitic malleable cast irons**

Serial No.	China GB/T 9440-2010	Russian ГОСТ 1215-1979	Japan JIS G5705: 2000	U.S.A. ASTM A220 /A220M: 1999	ISO ISO 5922: 2005	EU EN 1562: 1997
1	KTZ450-06	KЧ45-07	FCMP45-06	310M6 (45006) F23131	-	-
2	KTZ550-04	KЧ55-4	FCMP55-4	410M4 (60004) F24130	-	-
3	KTZ650-02	KЧ65-3	FCMP65-02	550M2 (80002) F25530	-	-
4	KTZ700-02	KЧ70-2	FCMP70-02	620M1 (90001) F26230	-	-

**Table 6** Approximate comparison of **cast carbon steels for general engineering purpose**

Serial No.	China GB/T 11352-2009	Russian ГОСТ 977-1988	Japan JIS G7821: 2001	U.S.A. ASTM A27 /A27M: 2005	ISO ISO 3755: 1991	EU EN 10213-2: 1995
1	ZG200-400	15JI	200-400W	Grade60-30 (415-205) J03000	200-400W	GP240GH 1.0621
2	ZG230-450	25JI	230-450W	Grade65-35 (450-240) J03001	230-450W	GP240GR 1.0621
3	ZG270-500	35JI	270-480W	Grade70-40 (485-275) J03501	270-480W	GP280GH 1.0625
4	ZG310-570	45JI	340-550W	Grade80 (550-345) D50550	340-550W	-
5	ZG340-640	50JI	340-550W	Grade80 (550-345) D50550	340-550W	-

Table 7 Approximate comparison of **cast carbon steels for welded structure**

Serial No.	China GB/T 7659-2010	Russian ГОСТ 977-1988	Japan JIS G5102: 1991	U.S.A. ASTM A216 /A216M: 2004	ISO ISO 3755: 1991	EU EN 10213-2: 1995
1	ZG200-400H	15JI	SCW410	GradeWCA J02502	200-400W	GP240GH 1.0621
2	ZG230-450H	20JI	SCW450	GradeWCB J03002	230-450W	GP240GR 1.0621
3	ZG270-480H	20ГJI	SCW480	GradeWCC J02503	270-480W	GP280GH 1.0625

Table 8 Approximate comparison of **corrosion-resistant cast steels for general engineering applications**

Serial No.	China GB/T 6967-2009	Russian ГОСТ 977-1988	Japan JIS G5121: 2003	U.S.A. ASTM A743 A743M: 2003	ISO ISO 11972: 1998 (ISO 4491: 2005)	EU EN 10283:1999 (EN10213-2:1995)
1	ZG20Cr13	20X13JI	SCS2	CA-40 J92253	(C39CH)	-
2	ZG10Cr13NiMo	-	SCS3	CA-15M J91151	GX8CrNiMo12-1	-
3	ZG06Cr13Ni4Mo	08X14H7MJ	SCS6	CA-6NM J91540	GX4CrNi13-4	GX4CrNi13-4 1.4317
4	ZG06Cr16Ni5Mo	09X17HCJI	SCS31	CA-6NM J91540	GX4CrNiMo16-5-1	GX4CrNiMo16-5-1 1.4405

**Table 9** Approximate comparison of **corrosion-resistant cast steels for general applications**

Serial No.	China GB/T 2100-2002	Russian ГОСТ 977-1988	Japan JIS G5121: 2003	U.S.A. ASTM A743 /A743: 2003	ISO ISO 11972: 1998 (ISO4991: 1994)	EU EN 10283: 1999
1	ZG15Cr12	15X13J1	SCS1X	CA-15 J91150	GX12Cr12	GX12Cr12 1.4011
2	ZG20Cr13	20X13J1	SCS2	CA-40 J92253	(C39CH)	-
3	ZG10Cr12NiMo	10X12H1J1	SCS3	CA-15M J91151	GX8CrNiMo12-1	GX7CrNiMo12-1 1.4008
4	ZG06Cr12Ni4	08X14H7MJ1	SCS6X	CA-6NM J91540	GX4CrNi12-4	GX4CrNi13-4 1.4317
5	ZG06Cr16Ni5Mo	09X17H3CJ1	SCS31	CA-6NM J91540	GX4CrNiMo16-5-1	GX4CrNiMo16-5-1 1.4405
6	ZG03Cr18Ni10	07X18H9J1	SCS36	CF-3 J92500	GX2CrNi18-10	GX2CrNi19-11 1.4309
7	ZG03Cr18Ni10N	07X18H9J1	SCS36N	CF-3A J92500	GX2CrNi18-10	GX2CrNi19-11 1.4309
8	ZG07Cr19Ni9	07X18H9J1	SCS13X	CF-8 J92600	GX5CrNi19-9	GX5CrNi19-9
9	ZG08Cr19Ni10Nb	10X18H11J1	SCS21X	CF-8C J92710	GX6CrNiNb19-10	GX5CrNiNb19-11 1.4552
10	ZG03Cr19Ni11-Mo2	0X18H10Г2-C2M2J1	SCS16AX	CF-3M J92800	GX2CrNiMo-19-11-2	GX2CrNiMo19-11-2 1.4409
11	ZG03Cr19Ni11-Mo2N	0X18H10Г2-C2M2J1	SCS16AXN	CF-3MN J92804	GX2CrNiMoN-19-11-2	GX2CrNiMo19-11-2 1.4409
12	ZG07Cr19Ni11Mo2	0X18H10Г2-C2M2J1	SCS14X	CF-8M J93000	GX5CrNiMo-19-11-2	GX5CrNiMo19-11-2 1.4408
13	ZG08Cr19Ni11-Mo2Nb	-	SCS14XNb	-	GX6CrNiNb-19-11-2	GX5CrNiNb19-11-2 1.4581
14	ZG03Cr19Ni11Mo3	-	SCS35	CF-3M J92800	GX2CrNiMo-19-11-3	-
15	ZG03Cr19Ni11-Mo3N	-	SCS35N	CF-3MN J92804	GX2CrNiMoN-19-11-3	GX2CrNiMoN17-13-4 1.4446
16	ZG07Cr19Ni11Mo3	-	SCS34		GX5CrNiMo19-11-3	GX5CrNiMo19-11-3 1.4412
17	ZG03Cr26Ni5Cu3-Mo3N	-	SCS32	-	GX2CrNiCuMoN26-5-3-3	GX2CrNiCuMoN-26-5-3-3 1.4517
18	ZG03Cr26Ni5Mo3N	-	SCS33	-	GX2CrNiMoN26-5-3	GX2CrNiMoN25-6-3 1.4468

**Table 10** Approximate comparison of **austenitic manganese cast steels**

Serial No.	China GB/T 5680-2010	Russian ГОСТ 977-1988	Japan JIS G5131: 1991	U.S.A. ASTM A128 /A128M: 1993	ISO	EU
1	ZGMn13-1	110Г13Л	SCMnH1	B4 J91149	-	-
2	ZGMn13-2	110Г13Л	SCMnH2	A J91109	-	-
3	ZGMn13-3	110Г13Л	SCMnH3	B3 J91139	-	-
4	ZGMn13-4	110Г13Х2БЛ	SCMnH11	C J91309	-	-

Table 11 Approximate comparison of **heat-resistant cast steels and alloy steels for general applications**

Serial No.	China GB/T 8492-2014	Russian ГОСТ 977-1988	Japan JIS G5122: 2003	U.S.A. ASTM A297 /A297M-1997	ISO ISO 11973: 1999	EU EN 10295: 2002E
1	ZG30Cr7Si2	20Х5МЛ	SCH4	-	GX30CrSi7	GX30CrSi7 1.470
2	ZG40Cr13Si2	-	SCH1X	-	GX40CrSi13	GX40CrSi13 1.4729
3	ZG40Cr17Si2	-	SCH5	-	GX40CrSi17	GX40CrSi17 1.4740
4	ZG40Cr24Si2	15Х25МЛ	SCH2X1	HC928Cr) J92605	GX40CrSi24	GX40CrSi24 1.4745
5	ZG40Cr28Si2	15Х25СЛ	SCH2X2	HC(28Cr) J92605	GX40CrSi28	GX40CrSi28 1.4776
6	ZG40Cr29Si2	-	SCH6	HC(28Cr) J92605	GX130CrSi29	GX130CrSi29 1.4777
7	ZG25Cr18Ni9Si2	10Х18Н9Л	SCH31	HF(19Cr-9Ni) J92603	GX25CrNiSi18-9	GX25CrNiSi18-9 1.4285
8	ZG25Cr20Ni14Si2	20Х20Х14С2Л	SCH32	-	GX25CrNiSi20-14	GX25CrNiSi20-14 1.4832
9	ZG40Cr22Ni10Si2	40Х24Н12СЛ	SCH12X	HF(19Cr-9Ni) J96203	GX40CrNiSi22-10	GX40CrNiSi22-10 1.4826
10	ZG40Cr24Ni24Si2Nb	-	SCH33	HN(20Cr-25Ni) J94213	GX40CrNiSiNb24-24	GX40CrNiSiNb24-24 1.4855
11	ZG40Cr25Ni12Si2	40Х24Н12СЛ	SCH13X	HH(25Cr-12Ni) J93503	GX40CrNiSi25-12	GX40CrNiSi25-12 1.4837
12	ZG40Cr25Ni20Si2	15Х23Н18Л	SCH22X	HK(25Cr-20Ni) J94224	GX40CrNiSi25-20	GX40CrNiSi25-20 1.4848
13	ZG40Cr27Ni4Si2	-	SCH11X	HD(28Cr-5Ni) J93005	GX40CrNiSi27-4 1.4823	HD(28Cr-5Ni) J93005



(to be continued)

Serial No.	China GB/T 8492-2014	Russian ГОСТ 977-1988	Japan JIS G5122: 2003	U.S.A. ASTM A297 /A297M-1997	ISO ISO 11973: 1999	EU EN 10295: 2002E
14	ZG45Cr20Co20Ni20-Mo3W3	-	SCH41	-	GX40NiCrCo20-20-20	GX40NiCrCo20-20-20 1.4874
15	ZG10Ni31Cr20Nb1	-	SCH34	-	GX10NiCrNb31-20	GX10NiCrNb31-20 1.4859
16	ZG40Ni35Cr17Si2	-	SCH15X	HT(17Cr-35Ni) J94605	GX40NiCrSi35-17	GX40NiCrSi35-17 1.4806
17	ZG40Ni35Cr26Si2	-	SCH24X	HP(26Cr-35Ni) J95705	GX40NiCrSi35-26	GX40NiCrSi35-26 1.4857
18	ZG40Ni35Cr26Si2Nb1	-	SCH24XNb	HP(26Cr-35Ni) J95705	GX40NiCrSiNb35-26	GX40NiCrSiNb35-26 1.4852
19	ZG40Ni38Cr19Si2	-	SCH20X	HU(19Cr-38Ni) J95405	GX40NiCrSi38-19	GX40NiCrSi38-19 1.4885
20	ZG40Ni38Cr19Si2Nb1	-	SCH20XNb	HU(19Cr-38Ni) J95405	GX40NiCrSiNb38-19	GX40NiCrSiNb38-19 1.4849
21	ZNiCr28Fe17W5-Si2C0.4	-	SCH42	-	GX45NiCrWSi48-28-5	G-NiCr28W 2.4879
22	ZNiCr50Nb1C0.1	-	SCH43	50Cr-50Ni	GX10NiCrNb50-50	G-NiCr50Nb 2.4680
23	ZNiFe18Cr15Si1C0.5	-	SCH45	-	GX50NiCr65-15	G-NiCr15 2.4815
24	Z60Cr28Fe18C0.3	-	SCH47	-	GX30CoCr50-28	G-CoCr28 2.4778