

Carbon Steels

JIS G 4051

Chemical Composition, %

Steel						Steel					
Grade	C	Si	Mn	P	S	Grade	C	Si	Mn	P	S
S 10 C	.08/.13	.15/.35	.30/.60	.030 max	.035 max	S 40 C	.37/.43	.15/.35	.60/.90	.030 max	.035 max
S 12 C	.10/.15	.15/.35	.30/.60	.030 max	.035 max	S 43 C	.40/.46	.15/.35	.60/.90	.030 max	.035 max
S 15 C	.13/.18	.15/.35	.30/.60	.030 max	.035 max	S 45 C	.42/.48	.15/.35	.60/.90	.030 max	.035 max
S 17 C	.15/.20	.15/.35	.30/.60	.030 max	.035 max	S 48 C	.45/.51	.15/.35	.60/.90	.030 max	.035 max
S 20 C	.18/.23	.15/.35	.30/.60	.030 max	.035 max	S 50 C	.47/.53	.15/.35	.60/.90	.030 max	.035 max
S 22 C	.20/.25	.15/.35	.30/.60	.030 max	.035 max	S 53 C	.50/.56	.15/.35	.60/.90	.030 max	.035 max
S 25 C	.22/.28	.15/.35	.30/.60	.030 max	.035 max	S 55 C	.52/.58	.15/.35	.60/.90	.030 max	.035 max
S 28 C	.25/.31	.15/.35	.60/.90	.030 max	.035 max	S 58 C	.55/.61	.15/.35	.60/.90	.030 max	.035 max
S 30 C	.27/.33	.15/.35	.60/.90	.030 max	.035 max	S 09 CK	.07/.12	.10/.35	.30/.60	.025 max	.025 max
S 33 C	.30/.36	.15/.35	.60/.90	.030 max	.035 max	S 15 CK	.13/.18	.15/.35	.30/.60	.025 max	.025 max
S 35 C	.32/.38	.15/.35	.60/.90	.030 max	.035 max	S 20 CK	.18/.23	.15/.35	.30/.60	.025 max	.025 max
S 38 C	.35/.41	.15/.35	.60/.90	.030 max	.035 max						

NOTE: As impurities, Cu, Ni, Cr and Ni + Cr for grades S 09 CK, S 15 CK, S 20 CK shall not exceed respectively 0.25%, 0.20%, 0.20% and 0.30%, and Cu, Ni, Cr and Ni + Cr for other grades shall not exceed respectively 0.30%, 0.20%, 0.20% and 0.35%.