STANDARD CARBON STEELS

Chemical Composition Ranges and Limits

SAE No.	C	Mn	P Max	S Max
1005	.06 max	.35 max	.040	.050
1006	.08 max	.25/.40	.040	.050
1008	.10 max	.30/.50	.040	.050
1010	.08/.13	.30/.60	.040	.050
1011	.08/.14	.60/.90	.040	.050
1012	.10/.15	.30/.60	.040	.050
1013	.11/.16	.30/.60	.030	.050
1015	.13/.18	.30/.60	.040	.050
1016	.13/.18	.60/.90	.040	.050
1017	.15/.20	.30/.60	.040	.050
1018	.15/.20	.60/.90	.040	.050
1020	.18/.23	.30/.60	.040	.050
1021	.18/.23	.60/.90	.040	.050
1022	.18/.23	.70/1.00	.040	.050
1023	.20/.25	.30/.60	.040	.050
1025	.22/.28	.30/.60	.040	.050
1026	.22/.28	.60/.90	.040	.050
1029	.25/.31	.60/.90	.040	.050
1030	.28/.34	.60/.90	.040	.050
1035	.32/.38	.60/.90	.040	.050
1038	.35/.42	.60/.90	.040	.050
1039	.37/.44	.70/1.00	.040	.050
1040	.37/.44	.60/.90	.040	.050
1042	.40/.47	.60/.90	.040	.050
1043	.40/.47	.70/1.00	.040	.050
1044	.43/.50	.30/.60	.040	.050
1045	.43/.50	.60/.90	.040	.050
1046	.43/.50	.70/1.00	.040	.050
1049	.46/.53	.60/.90	.040	.050
1050	.48/.55	.60/.90	.040	.050
1053	.48/.55	.70/1.00	.040	.050
1055	.50/.60	.60/.90	.040	.050
1060	.55/.65	.60/.90	.040	.050
1065	.60/.70	.60/.90	.040	.050
1070	.65/.75	.60/.90	.040	.050
1074	.70/.80	.50/.80	.040	.050
1078	.72/.85	.30/.60	.040	.050
1080	.75/.88	.60/.90	.040	.050
1086	.80/.93	.30/.50	.040	.050
1090	.85/.98	.60/.90	.040	.050
1095	.90/1.03	.30/.50	.040	.050

STANDARD ALLOY STEELS

Chemical Composition Ranges and Limits

SAE No.	C	Mn	Cr	Ni	Mo	Other
1330	.28/.33	1.60/1.80	.....	.....	.....	.....
1335	.33/.38	1.60/1.90	.....	.....	.....	.....
1340	.38/.43	1.60/1.90	.....	.....	.....	.....
4023	.20/.25	.70/.90	.....	.....	.20/.30	.....
4027	.25/.30	.70/.90	.....	.....	.20/.30	.....
4037	.35/.40	.70/.90	.....	.....	.20/.30	.....
4047	.45/.50	.70/.90	.....	.....	.20/.30	.....
4118	.18/.23	.70/.90	.40/.60	.....	.08/.15	.....
4120[1]	.18/.23	.90/1.20	.40/.60	.....	.13/.20	.....
4130	.28/.33	.40/.60	.80/1.10	.....	.15/.25	.....
4137	.35/.40	.70/.90	.80/1.10	.....	.15/.25	.....
4140	.38/.43	.75/1.00	.80/1.10	.....	.15/.25	.....
4142	.40/.45	.75/1.00	.80/1.10	.....	.15/.25	.....
4145	.43/.48	.75/1.00	.80/1.10	.....	.15/.25	.....
4150	.48/.53	.75/1.00	.80/1.10	.....	.15/.25	.....
4320	.17/.22	.45/ .65	.40/.60	1.65/2.00	.20/.30	.....
4340	.38/.43	.60/.80	.70/.90	1.65/2.00	.20/.30	.....
E4340	.38/.43	.65/.85	.70/.90	1.65/2.00	.20/.30	.....
4620	.17/.22	.45/.65	.....	1.65/2.00	.20/.30	.....
4820	.18/.23	.50/.70	.....	3.25/3.75	.20/.30	.....
50B46[2]	.44/.49	.75/1.00	.20/.35	.....	.....	.....
5120	.17/.22	.70/.90	.70/.90	.....	.....	.....
5130	.28/.33	.70/.90	.80/1.10	.....	.....	.....
5132	.30/.35	.60/.80	.75/1.00	.....	.....	.....
5140	.38/.43	.70/.90	.70/.90	.....	.....	.....
5150	.48/.53	.70/.90	.70/.90	.....	.....	.....
5160	.56/.64	.75/1.00	.70/.90	.....	.....	.....
51B60[2]	.56/.64	.75/1.00	.70/.90	.....	.....	.....
51100	.98/1.10	.25/.45	.90/1.15	.....	.....	.....
E52100	.98/1.10	.25/.45	1.30/1.60	.....	.....	P = .025 S = .025
52100	.93/1.05	.25/.45	1.35/1.60	.....	.....	P = .025 S = .015

[1] Formerly PS 15
[2] B = .0005/.003

STANDARD ALLOY STEELS – continued

SAE No.	C	Mn	Cr	Ni	Mo	Other
						V
6150	.48/.53	.70/.90	.80/1.10	.....	.....	.15 min
8615	.13/.18	.70/.90	.40/.60	.40/.70	.15/.25	.....
8617	.15/.20	.70/.90	.40/.60	.40/.70	.15/.25	.....
8620	.18/.23	.70/.90	.40/.60	.40/.70	.15/.25	.....
8622	.20/.25	.70/.90	.40/.60	.40/.70	.15/.25	.....
8630	.28/.33	.70/.90	.40/.60	.40/.70	.15/.25	.....
8640	.38/.43	.75/1.00	.40/.60	.40/.70	.15/.25	.....
8645	.43/.48	.75/1.00	.40/.60	.40/.70	.15/.25	.....
8720	.18/.23	.70/.90	.40/.60	.40/.70	.20/.30	.....
8822	.20/.25	.75/1.00	.40/.60	.40/.70	.30/.40	.....
						Si
9259	.56/.64	.75/1.00	.45/.65	.....	.....	.70/1.10
9260	.56/.64	.75/1.00	.....	.....	.....	1.80/2.20

Unless specified:
Si = .15/.35, P = .035 max (SAE J1268), S = .040 max, Ni = .25 max, Cr = .20 max, Mo = .06 max

These standard grades can have modifications in chemistry when agreed upon by user and supplier.