

SUMMARY CHEMICAL COMPOSITION

Chemical composition by the ladle sample (% per weight)

		C 37	SAE1015mod (1015)	SAE 1012 (1012)	SAE 1020 (1020)	SAE 1006 (1006)	SAE 1008 (1008)
Carbon	C	0.08 – 0.16	0.13 – 0.18	0.10 – 0.15	0.18-0.23	max 0.08	max 0.10
Silicon	Si	0.10 – 0.30	max 0.40	max 0.40	0.15-0.35	0.15-0.35	0.15-0.35
Manganese	Mn	0.25 – 0.70	0.30 – 0.60	0.30 – 0.60	0.30-0.60	0.25-0.40	0.30-0.50
Phosphorus	P	max 0.045	max 0.030	max 0.040	max 0.030	max 0.030	max 0.030
Sulfur	S	max 0.050	max 0.035	max 0.050	max 0.050	max 0.050	max 0.050
Chrome	Cr	max 0.35	max 0.30	max 0.30	max 0.30	max 0.30	max 0.30
Nickel	Ni	max 0.35	max 0.30	max 0.30	max 0.30	max 0.30	max 0.30
Copper	Cu	max 0.40	max 0.30	max 0.30	max 0.30	max 0.30	max 0.30
Molybdenum	Mo	-----	max 0.06	max 0.06	max 0.06	max 0.06	max 0.06
Wolfram	W	-----	max 0.06	max 0.06	max 0.06	max 0.06	max 0.06
Vanadium	V	-----	max 0.05	max 0.05	max 0.05	max 0.05	max 0.05
Titan	Ti	-----	max 0.03	max 0.03	max 0.03	max 0.03	max 0.03
Aluminum (total)	Al(total)	-----	0.020 – 0.070	-----	-----	-----	-----

Allowed content of elements in the piece analysis (% per weight)

		C 37	SAE1015mod (1015)	SAE 1012 (1012)	SAE 1020 (1020)	SAE 1006 (1006)	SAE 1008 (1008)
Carbon	C	+ 0.01 / - 0.02	+/- 0.02	+/- 0.02	+/- 0.02	+/- 0.02	+/- 0.02
Silicon	Si	+ 0.05 / - 0.03	+ 0.05	+ 0.05	+/- 0.02	+/- 0.02	+/- 0.02
Manganese	Mn	+ 0.03 / - 0.02	+/- 0.03	+/- 0.03	+/- 0.03	+/- 0.03	+/- 0.03
Phosphorus	P	+ 0.005	+ 0.005	+ 0.008	+ 0.008	+ 0.008	+ 0.008
Sulfur	S	+ 0.005	+ 0.005	+ 0.008	+ 0.008	+ 0.008	+ 0.008
Aluminium (total)	Al (total)	-----	+/- 0.005	-----	-----	-----	-----

SUMMARY CHEMICAL COMPOSITION

Chemical composition by the ladle sample (% per weight)

		S235JRG2 (235)	LRS 10 (LRS 10)	S235JRG2mod (235)	LRS 235 (LRS 235)	LRS 6
Carbon	C	max 0.20	max 0.15	max 0.20	0.14 – 0.20	max 0,06
Silicon	Si	max 0.40	max 0.30	max 0.40	max 0.30	max 0,07
Manganese	Mn	max 1.40	0.25 – 0.50	max 0.60	0.25 – 0.50	0,28 – 0,45
Phosphorus	P	max 0.045	max 0.040	max 0.045	max 0.050	max 0,03
Sulfur	S	max 0.045	max 0.035	max 0.045	max 0.035	max 0,04
Chrome	Cr	max 0.30	max 0.30	max 0.30	max 0.30	max 0,35
Nickel	Ni	max 0.30	max 0.30	max 0.30	max 0.30	max 0,35
Copper	Cu	max 0.30	max 0.30	max 0.30	max 0.30	max 0,35
Molybdenum	Mo	max 0.06	max 0.06	max 0.06	max 0.06	max 0,06
Wolfram	W	max 0.06	max 0.06	max 0.06	max 0.06	max 0,06
Vanadium	V	max 0.05	max 0.05	max 0.05	max 0.05	max 0,05
Titan	Ti	max 0.05	max 0.03	max 0.03	max 0.03	max 0,04
Aluminium (total)	Al (total)	-----	-----	-----	-----	max 0,08
Nitrite	N	-----	-----	-----	-----	max 0,012

Allowed content of elements in the piece analysis (% per weight)

		S235JRG2 (235)	LRS 10 (LRS 10)	S235JRG2mod (235)	LRS 235 (LRS 235)	LRS 6
Carbon	C	max 0.22	max 0.17	max 0.22	0.12 – 0.22	+ 0,02
Silicon	Si	max 0.45	max 0.35	max 0.45	max 0.35	+ 0,02
Manganese	Mn	max 1.45	0.21 – 0.54	max 0.64	0.21 – 0.54	+/- 0,03
Phosphorus	P	max 0.050	max 0.045	max 0.050	max 0.055	+ 0,005
Sulfur	S	max 0.050	max 0.040	max 0.050	max 0.040	+ 0,005
Titan	Ti	-----	-----	-----	-----	+ 0,005
Aluminium (total)	Al (total)	-----	-----	-----	-----	+ 0,005
Nitrite	N	max 0.012	max 0.012	max 0.012	-----	+ 0,002

SUMMARY CHEMICAL COMPOSITION

Chemical composition by the ladle sample (% per weight)

		C1006 (1006)	EN3A (3A)	S355J0 (355)
Carbon	C	max 0.08	0.15 – 0.25	max 0.22
Silicon	Si	0.10 – 0.20	0.05 – 0.35	0.55
Manganese	Mn	0.25 -0.40	0.40 – 0.90	1.60
Phosphorus	P	max 0.030	max 0.060	max 0.040
Sulfur	S	max 0.050	max 0.060	max 0.040
Chrome	Cr	max 0.35	max 0.40	-----
Nickel	Ni	max 0.35	max 0.40	-----
Copper	Cu	max 0.35	max 0.50	-----
Molybdenum	Mo	max 0.06	-----	-----
Wolfram	W	max 0.06	-----	-----
Vanadium	V	max 0.05	-----	-----
Titan	Ti	max 0.05	-----	-----
Aluminium (total)	Al (total)	-----	-----	-----
Nitrite	N	-----	-----	max 0.009

Allowed content of elements in the piece analysis (% per weight)

		C1006 (1006)	EN3A (3A)	S355J0 (355)
Carbon	C	+/- 0.02	+/- 0.02	-----
Silicon	Si	+ 0.05	+/- 0.03	-----
Manganese	Mn	+/- 0.03	+/- 0.04	-----
Phosphorus	P	+ 0.008	+ 0.005	-----
Sulfur	S	+ 0.008	+ 0.005	-----