

Classification of Stainless Steel Electrodes As Per to AWS A5.4

E 309 L Mo -16								
Symbol	Chemical Composition of Weld Metal %						Mechanical Properties	
	C	Si	Mn	Cr	Ni	Mo	Tensile Strength	Elongation min. %
E 209 ¹⁾	0.06	0.90	4.0 – 7.0	20.5 – 24.0	9.5 – 12.0	1.5 – 3.0	690	15
E 219 ¹⁾	0.06	1.00	8.0 – 10.0	19.0 – 21.5	5.5 – 7.0	0.75	620	15
E 240 ¹⁾	0.06	1.00	10.5 – 13.5	17.0 – 19.0	4.0 – 6.0	0.75	690	15
E 307	0.04 – 0.14	0.90	3.30 – 4.75	18.0 – 21.5	9.0 – 10.7	0.5 – 1.5	590	30
E 308	0.08	0.90	0.5 – 2.5	18.0 – 21.0	9.0 – 11.0	0.75	550	35
E308 H	0.04 – 0.08	0.90	0.5 – 2.5	18.0 – 21.0	9.0 – 11.0	0.75	550	35
E 308 L	0.04	0.90	0.5 – 2.5	18.0 – 21.0	9.0 – 11.0	0.75	520	35
E308 Mo	0.08	0.90	0.5 – 2.5	18.0 – 21.0	9.0 – 12.0	2.0 – 3.0	550	35
E 308 MoL	0.04	0.90	0.5 – 2.5	18.0 – 21.0	9.0 – 12.0	2.0 – 3.0	520	35
E 309	0.15	0.90	0.5 – 2.5	22.0 – 25.0	12.0 – 14.0	0.75	550	30
E 309 L	0.04	0.90	0.5 – 2.5	22.0 – 25.0	12.0 – 14.0	0.75	520	30
E 309 Cb ³⁾	0.12	0.90	0.5 – 2.5	22.0 – 25.0	12.0 – 14.0	0.75	550	30
E 309 Mo	0.12	0.90	0.5 – 2.5	22.0 – 25.0	12.0 – 14.0	2.0 – 3.0	550	30
E 309 LMo	0.04	0.90	0.5 – 2.5	22.0 – 25.0	12.0 – 14.0	2.0 – 3.0	520	30
E 310	0.08–0.20	0.75	1.0 – 2.5	25.0 – 28.0	20.0 – 22.5	0.75	550	30
E 310 H	0.35–0.45	0.75	1.0 – 2.5	25.0 – 28.0	20.0 – 22.5	0.75	620	10
E 310 Cb ³⁾	0.12	0.75	1.0 – 2.5	25.0 – 28.0	20.0 – 22.0	0.75	550	25
E 310 Mo	0.12	0.75	1.0 – 2.5	25.0 – 28.0	20.0 – 22.0	2.0 – 3.0	550	30
E 312	0.15	0.90	0.5 – 2.5	28.0 – 32.0	8.0 – 10.5	0.75	660	22
E 316	0.08	0.90	0.5 – 2.5	17.0 – 20.0	11.0 – 14.0	2.0 – 3.0	520	30
E 316 H	0.04 – 0.08	0.90	0.5 – 2.5	17.0 – 20.0	11.0 – 14.0	2.0 – 3.0	520	30
E 316 L	0.04	0.90	0.5 – 2.5	17.0 – 20.0	11.0 – 14.0	2.0 – 3.0	490	30
E 317	0.08	0.90	0.5 – 2.5	18.0 – 21.0	12.0 – 14.0	3.0 – 4.0	550	30
E 317 L	0.04	0.90	0.5 – 2.5	18.0 – 21.0	12.0 – 14.0	3.0 – 4.0	520	30
E 318 ³⁾	0.08	0.90	0.5 – 2.5	17.0 – 20.0	11.0 – 14.0	2.0 – 3.0	550	25
E 320 ^{2) 3)}	0.07	0.60	0.5 – 2.5	19.0 – 21.0	32.0 – 36.0	2.0 – 3.0	550	30
E 320 LR ^{2) 3)}	0.03	0.30	1.50 – 2.5	19.0 – 21.0	32.0 – 36.0	2.0 – 3.0	520	30
E 330	0.18 – 0.25	0.90	1.0 – 2.5	14.0 – 17.0	33.0 – 37.0	0.75	520	25
E 330 H	0.35 – 0.45	0.90	1.0 – 2.5	14.0 – 17.0	33.0 – 37.0	0.75	620	10
E 347	0.08	0.90	0.5 – 2.5	18.0 – 21.0	9.0 – 11.0	0.75	520	30
E 349	0.13	0.90	0.5 – 2.5	18.0 – 21.0	8.0 – 10.0	0.35 – 0.65	690	25
E 383	0.03	0.90	0.5 – 2.5	26.5 – 29.0	30.0 – 33.0	3.2 – 4.2	520	30
E 385	0.03	0.75	1.0 – 2.5	19.5 – 21.5	24.0 – 26.0	4.2 – 5.2	520	30
E 410	0.12	0.90	1.0	11.0 – 13.5	0.7	0.75	450	20
E 410 NiMo	0.06	0.90	1.0	11.0 – 12.5	4.0 – 5.0	0.40 – 0.70	760	15
E 430	0.10	0.90	1.0	15.0 – 18.0	0.6	0.75	450	20
E 502	0.10	0.90	1.0	4.0 – 6.0	0.4	0.45 – 0.65	420	20
E 505	0.10	0.90	1.0	8.0 – 10.5	0.4	0.85 – 1.20	420	20
E 630 ^{2) 3)}	0.05	0.75	0.25 – 0.75	16.00 – 16.75	4.5 – 5.0	0.75	930	7
E 16–8–2	0.10	0.60	0.5 – 2.4	14.5 – 16.5	7.5 – 9.5	1.0 – 2.0	550	35
E7 Cr	0.10	0.90	1.0	6.0 – 8.0	0.4	0.45 – 0.65	420	20
E 2209 ¹⁾	0.04	0.90	0.5 – 2.0	21.5 – 23.5	8.5 – 10.5	2.5 – 3.5	690	20
E2553 ^{1) 2)}	0.06	1.0	0.5 – 1.5	24.0 – 27.0	6.5 – 8.5	2.9 – 3.9	760	15

Symbol	Current Type	Welding Position
15	DC (+)	All Welding Position
16	AC, DC (+)	
17	AC, DC (+)	
25 26	DC (+) AC, DC (+)	Horizontal Flat And Horizontal

Production Type	
G	Wire Electrodes
O	Oxy–Acetylene
E	Electric Arc Welding
S	Submerged Arc
T	Flux–Cored Wires
W	TIG Rods
F	Submerged Arc

1) Weld metal includes N.	2) Weld metal includes cu	3) Weld metal includes Cb (Nb)+ Ta.
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