

GUIDE TO AWS A5.4-92 ELECTRODE CLASSIFICATIONS

Covered electrode for manual metal arc welding

E 308-17

Indicates Composition type

Suffix	Coating type and usability characteristics
-15	For use with DC+ only. Usually basic coated. All Positions
-16	For use with DC+ and AC. Rutile coating. All positions
-17	As for -16, but higher silica content in coating gives the following 1. more of a spray arc (transfer) and finer rippled bead surface 2. slower freezing slag permits improved handling with a drag technique 3. mitre to slight concave H-V fillets. 4. when making vertical-up fillets the slower freezing slag requires a slight weave to produce a flat profile
-25	Same coating type as for -15 but with a mild steel core wire. Flat and horizontal positions only.
-26	Same coating and type for -16 but with a mild steel core wire. Flat and horizontal positions only.

Chemical Composition of undiluted weld metal												
AWS Code	C	Cr	Ni	Mo	Nb+Ta	Mn	Si	P	S	N	Cu	
E209-xx	0.06	20.5-24.0	9.5-12.0	1.5-3.0	-	4.0-7.0	0.90	0.04	0.03	0.10-0.30	0.75	
E219-xx	0.06	19.0-21.5	5.5-7.0	0.75	-	8.0-10.0	1.00	0.04	0.03	0.10-0.30	0.75	
E240-xx	0.06	17.0-19.0	4.0-6.0	0.75	-	10.5-13.5	1.00	0.04	0.03	0.1-0.30	0.75	
E307-xx	0.04-0.14	18.0-21.5	9.0-10.7	0.5-1.5	-	3.30-4.75	0.90	0.04	0.03	-	0.75	
E308-xx	0.08	18.0-21.0	9.0-11.0	0.75	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E308H-xx	0.04-0.06	18.0-21.0	9.0-11.0	0.75	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E308L-xx	0.04	18.0-21.0	9.0-11.0	0.75	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E308Mo-xx	0.08	18.0-21.0	9.0-12.0	2.0-3.0	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E308MoL-xx	0.04	18.0-21.0	9.0-12.0	2.0-3.0	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E309-xx	0.15	22.0-25.0	12.0-14.0	0.75	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E309L-xx	0.04	22.0-25.0	12.0-14.0	0.75	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E309Cb-xx	0.12	22.0-25.0	12.0-14.0	0.75	0.70-1.00	0.5-2.5	0.90	0.04	0.03	-	0.75	
E309Mo-xx	0.12	22.0-25.0	12.0-14.0	2.0-3.0	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E309MoL-xx	0.04	22.0-25.0	12.0-14.0	2.0-3.0	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E310-xx	0.08-0.20	25.0-28.0	20.0-22.5	0.75	-	1.0-2.5	0.75	0.03	0.03	-	0.75	
E310H-xx	0.35-0.45	25.0-28.0	20.0-22.5	0.75	-	1.0-2.5	0.75	0.03	0.03	-	0.75	
E310-Cb-xx	0.12	25.0-28.0	20.0-22.0	0.75	0.70-1.00	1.0-2.5	0.75	0.03	0.03	-	0.75	
E310Mo-xx	0.12	25.0-28.0	20.0-22.0	2.0-3.0	-	1.0-2.5	0.75	0.03	0.03	-	0.75	
E312-xx	0.15	28.0-32.0	8.0-10.5	0.75	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E316-xx	0.08	17.0-22.0	11.0-14.0	2.0-3.0	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E316H-xx	0.04-0.06	17.0-22.0	11.0-14.0	2.0-3.0	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E316L-xx	0.04	17.0-22.0	11.0-14.0	2.0-3.0	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E317-xx	0.08	18.0-21.0	12.0-14.0	3.0-4.0	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E317L-xx	0.04	18.0-21.0	12.0-14.0	3.0-4.0	-	0.5-2.5	0.90	0.04	0.03	-	0.75	
E318-xx	0.08	17.0-20.0	11.0-14.0	2.0-3.0	≥6x≤1.00	0.5-2.5	0.90	0.04	0.03	-	0.75	
E320-xx	0.07	19.0-21.0	32.0-36.0	2.0-3.0	≥8x≤1.00	0.5-2.5	0.60	0.04	0.03	-	3.0-4.0	
E320LR-xx	0.03	19.0-21.0	32.0-36.0	2.0-3.0	≥8x≤0.40	1.50-2.50	0.30	0.02	0.015	-	3.0-4.0	
E330-xx	0.18-0.25	14.0-17.0	33.0-37.0	0.75	-	1.0-2.5	0.90	0.04	0.03	-	0.75	
E330H-xx	0.35-0.45	14.0-17.0	33.0-37.0	0.75	-	1.0-2.5	0.90	0.04	0.03	-	0.75	
E347-xx	0.08	18.0-21.0	9.0-11.0	0.75	≥8x≤1.00	0.5-2.5	0.90	0.04	0.03	-	0.75	
E349-xx	0.13	18.0-21.0	8.0-10.0	0.35-0.65	0.75-1.20	0.5-2.5	0.90	0.04	0.03	-	0.75	
E383-xx	0.03	26.5-29.0	30.0-33.0	3.2-4.2	-	0.5-2.5	0.90	0.04	0.02	-	0.6-1.5	
E385-xx	0.03	19.5-21.5	24.0-26.0	4.2-5.2	-	1.0-2.5	0.75	0.03	0.02	-	1.2-2.0	
E410-xx	0.12	11.0-13.5	0.7	0.75	-	1.0	0.90	0.04	0.03	-	0.75	
E410NiMo-xx	0.06	11.0-12.5	4.0-5.0	0.40-0.70	-	1.0	0.90	0.04	0.03	-	0.75	
E430-xx	0.1	15.0-18.0	0.6	0.75	-	1.0	0.90	0.04	0.03	-	0.75	
E630-xx	0.05	16.00-16.75	4.5-5.0	0.75	0.15-0.30	0.25-0.75	0.75	0.04	0.03	-	3.25-4.00	
E16-8-2-xx	0.1	14.5-16.5	7.5-9.5	1.0-2.0	-	0.5-2.5	0.60	0.03	0.03	-	0.75	
E7Cr-xx	0.1	6.0-8.0	0.4	0.45-0.65	-	1.0	0.90	0.04	0.03	-	0.75	
E2209-xx	0.04	21.5-23.5	8.5-10.5	2.5-3.5	-	0.5-2.0	0.90	0.04	0.03	0.08-0.20	0.75	
E2553-xx	0.06	25.0-27.0	6.5-8.5	2.9-3.9	-	0.5-1.5	1.00	0.04	0.03	0.10-0.25	1.5-2.5	

Note: Single Value indicate maximum limit