



# Mid alloy

**CHROMAX**

**STAINLESS STEEL**

**COATED ELECTRODES**

**S P E C I F I C A T I O N S**

## **IMPORTANT REMINDER**

The data contained in this bulletin are intended for general information only, and not for specification purposes.

Applications suggested for these alloys are made to permit you to make your own evaluation and decision, and are not to be construed as either express or implied warranties of fitness for these or other applications.

All analyses should be considered as typical or average values, and are minimum or maximum only where indicated. They are not intended for specification purposes.

**PROTECT YOURSELF AND OTHERS** - Users should read and follow all recommended guidance on health and safety from their employer, the supplier, the manufacturer, and government authorities. These, at a minimum include the Warning Labels on the products and the Material Safety Data Sheets ("MSDS"). The MSDS and additional safety information may be found on materials or links at [www.mid alloy.com](http://www.mid alloy.com).

# CHROMAX STAINLESS STEEL COATED ELECTRODES

**Midalloy CHROMAX** Stainless Steel Coated Electrodes are manufactured in accordance to specification AWS A5.4/ASME SFA5.4. These high quality SMAW Electrodes are produced to provide dependable performance with outstanding welding characteristics.

**THESE CHARACTERISTICS INCLUDE:**

- Controlled composition and ferrite
- Close tolerance for alloying elements
- Low impurity levels
- Complete penetration
- Smooth and stable arc characteristics
- Easy slag removal
- Excellent bead appearance
- Good restrike capabilities

TYPICAL WELDING PARAMETERS		
Welding Position	Diameter	*Amperage
FLAT	3/32"(2.4m)	35-55
	1/8"(3.2m)	50-85
	5/32"(4.0m)	80-120
	3/16"(4.8m)	100-150
VERTICAL/ OVERHEAD	3/32"(2.4m)	30-50
	1/8"(3.2m)	45-80
	5/32"(4.0m)	70-110
	3/16"(5.0m)	90-135

\*Note: 400 series tend to run approximately 10% higher than 300 series

GRADE	Typical As Deposited All Weld Metal Chemistry With Midalloy CHROMAX Coated Electrodes										Other	% Fe Schaeffler	Tensile PSI	Yield PSI	% Elongation	F#	A#
	C	Mn	Si	P	S	Cr	Ni	Mo	Cu	N							
E308-16/ E308H-16	.05	1.8	.55	.020	.005	19.2	9.8	.08	.11	.06	-	6	84,000	59,000	46	5	8
E308L-16	.03	1.3	.60	.014	.008	19.3	9.8	.07	.10	.06	-	10.4	79,000	56,550	45	5	8
E309-16	.04	1.3	.39	.023	.003	23.3	13.3	.09	.10	.06	-	7.7	83,810	59,500	42	5	8
E309L-16	.03	1.5	.39	.023	.007	23.4	13.1	.07	.10	.06	-	9.2	79,605	58,000	45	5	8
E310-16	.08	1.9	.40	.010	.010	27.3	21.0	.07	.10	.06	-	-	85,260	60,900	38	5	9
E310HC-16	.42	1.6	.68	.013	.008	26.7	20.5	.07	.10	.06	-	-	115,130	85,500	18	-	-
E312-16	.12	1.4	.49	.015	.010	28.5	9.0	.07	.10	.06	-	-	110,200	78,000	29	-	-
E316-16/ E316H-16	.05	1.3	.35	.02	.015	19.5	13.2	2.50	.11	.06	-	6.5	82,360	58,500	40	5	8
E316L-16	.03	1.2	.50	.016	.010	19.5	13.2	2.50	.11	.06	-	5	78,300	58,000	41	5	8
E317L-16	.03	1.5	.36	.015	.010	19.6	13.9	3.52	.10	.06	-	10.0	82,500	58,000	38	5	8
E320LR-16	.03	1.85	.190	.018	.007	19.7	32.3	2.40	3.51	.06	Cb+Ta 8xC to .40 max	-	85,000	57,000	34	5	9
E330-16	.18	1.9	.38	.025	.002	15.9	36.1	.15	.001	.06	-	-	84,500	57,000	26	-	-
E347-16	.06	1.3	.35	.020	.015	19.5	9.1	.05	.10	.06	Cb+Ta 8xC to .10 max	10.0	86,000	57,000	40	5	8
E385-16	.02	2.1	.45	.018	.009	20.5	25.2	4.6	1.75	.06	-	-	88,000	65,500	32	-	-
E410-16	.08	.7	.35	.018	.012	13.0	.7 max	.75 max	.05	.06	-	-	78,000	63,000	23	4	6
E410NiMo-16	.04	.6	.31	.020	.003	12.3	4.6	.52	.02	.06	-	-	110,500	91,000	17	4	6
E630-16	.03	.50	.52	.024	.019	16.50	4.8	.09	3.75	.06	Cb+Ta .22	-	148,000	92,000	9	-	-
E2209-16	.03	.8	.46	.020	.020	22.7	8.8	3.0	.07	.17	-	40	105,000	80,500	26	5	8
E2553-16	.04	1.2	.53	.014	.013	25.75	8.4	3.5	1.72	.20	-	-	134,125	108,750	22	5	8

Note: Preheat, PWHT, and interpass temperature all affect mechanical properties shown.



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