



Mid alloy

MASTERCOR®

STAINLESS STEEL

FLUX CORED WIRE

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.

MASTERCOR® STAINLESS STEEL FLUX CORED WIRE SPECIFICATIONS

Midalloy Mastercor® Stainless Steel Flux Cored Wire is manufactured in accordance to specification AWS/SFA 5.22. This high quality wire can be used in automatic and semi-automatic applications, and in many cases can be run with 100% CO₂, or mixed gases such as 75% Ar / 25% CO₂.

OUTSTANDING WELD CHARACTERISTICS:

- High deposition rate and efficiency
- Exceptional feedability
- Less spatter
- Self-peeling slag
- Excellent bead appearance
- X-ray quality welds
- No increase in as-deposited carbon level with straight CO₂ shielding gas

Diameter	Thickness to be Welded	Shielding Gas†	Wire Feed Speed (IPM)	Amperage (DC Rev)	Volts†	Deposition Rate (Lbs/Hr)
FLAT AND HORIZONTAL POSITION						
0.035"	3/16	100% CO ₂	300-650	100-170	23-28	4-8
0.045"	1/4 to 3/8	100% CO ₂	250-700	130-270	24-34	6-12
0.062"	1/2 - Over	100% CO ₂	150-320	150-300	25-34	8-12
ALL POSITION						
0.035"	1/8 to 3/16	100% CO ₂	280-550	100-160	24-28	3-7
0.045"	1/4 to 3/8	100% CO ₂	280-450	150-190	24-28	5-10
0.062"	1/2 - Over	100% CO ₂	190-250	200-260	24-28	8-12

† If using a mixed gas (75% Ar, 25% CO₂) reduce the voltage by 2 volts

Standard Package: 12" Diameter, 33 Lb. Level Layer Wound Spool

GRADE	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	N	Other	% Ferrite (Schaeffler)	Tensile Strength P.S.I.	% Elongation	Shielding Gas	Data Sheet
TYPICAL AS-DEPOSITED CHEMISTRY: FLAT AND HORIZONTAL																
E308T0-1/4	.06	.58	1.1	.015	.015	9.9	18.9	.10	.10	.05	Bz < .002	2-10	87,000	42	100% CO ₂ or 75% Ar / 25% CO ₂	*
E308LT0-1/4	.03	.63	1.2	.015	.015	10.4	20.1	.20	.10	.05		8-12	82,300	38	100% CO ₂ or 75% Ar / 25% CO ₂	*
E309LT0-1/4	.03	.67	1.0	.015	.006	13.2	24.6	1.00	.12	.05		12-19	88,000	32	100% CO ₂ or 75% Ar / 25% CO ₂	*
E316LT0-1/4	.03	.66	1.3	.030	.020	12.9	19.2	2.50	.10	.05		5-15	82,000	40	100% CO ₂ or 75% Ar / 25% CO ₂	*
TYPICAL AS-DEPOSITED CHEMISTRY: ALL POSITION																
E307T1-1/4	.10	.75	4.0	.030	.020	9.1	19.2	.55	.20	.05		4-6	91,000	40	100% CO ₂ or 75% Ar / 25% CO ₂	*
E308LT1-1/4	.03	.87	1.2	.015	.015	10.7	20.3	.20	.20	.05		8-12	82,000	38	100% CO ₂ or 75% Ar / 25% CO ₂	*
E308T1-1/4 E308HT1-1/4	.06	.70	1.2	.030	.020	10.0	19.5	.15	.02	.05	Bz < .002	4-10	87,000	35	100% CO ₂ or 75% Ar / 25% CO ₂	*
E309LT1-1/4	.03	.80	.95	.030	.020	12.5	24.2	.30	.20	.05		8-15	85,100	38	100% CO ₂ or 75% Ar / 25% CO ₂	*
E309T1-1/4 E309HT1-1/4	.06	.80	1.0	.030	.020	12.6	24.0	.30	.02	.05	Bz < .002	8-15	89,100	35	100% CO ₂ or 75% Ar / 25% CO ₂	*
E309LMoT1-1/4	.03	.72	1.1	.030	.020	13.4	23.4	2.46	.09	.05		8-15	91,000	34	100% CO ₂ or 75% Ar / 25% CO ₂	*
E310T1-1/4	.10	.82	1.4	.015	.005	20.4	25.9	.10	.08	.05			89,000	38	100% CO ₂ or 75% Ar / 25% CO ₂	*
E312T1-1/4	.05	.89	.8	.030	.020	9.1	28.1	.16	.16	.05			106,000	28	100% CO ₂ or 75% Ar / 25% CO ₂	*
E316LT1-1/4	.03	.85	1.1	.020	.080	12.1	18.5	2.51	.08	.05		4-10	81,000	39	100% CO ₂ or 75% Ar / 25% CO ₂	*
E316T1-1/4 E316HT1-1/4	.06	.85	1.1	.030	.020	12.1	18.5	2.51	.05	.05	Bz < .002	5-15	83,500	39	100% CO ₂ or 75% Ar / 25% CO ₂	*
E317LT1-1/4	.03	.80	.8	.030	.020	13.3	18.7	3.48	.02	.05		5-15	90,000	34	100% CO ₂ or 75% Ar / 25% CO ₂	*
E347T1-1/4 E347HT1-1/4	.06	.63	1.8	.030	.015	10.35	20.2	.20	.20	.05	Bz < .002 Cb: 8xC to ≤ 1%	5-15	88,000	40	100% CO ₂ or 75% Ar / 25% CO ₂	*
E410T1-1/4	.08	.55	.72	.015	.015	.10	12.3	.02	.30	.05			96,000	20	100% CO ₂ or 75% Ar / 25% CO ₂	*
E410NiMoT1-1/4	.05	.55	.72	.015	.015	4.5	12.3	.52	.30	.05			128,000	16	100% CO ₂ or 75% Ar / 25% CO ₂	*
TYPICAL AS-DEPOSITED CHEMISTRY: SPECIAL PURPOSE																
E2209T1-1/4	.03	.60	.95	.030	.015	9.7	22.5	3.25	.20	.20			120,000	26	100% CO ₂ or 75% Ar / 25% CO ₂	*
E2553T1-1/4	.03	.73	.8	.030	.015	9.9	25.3	3.37	1.87	.14			124,000	24	100% CO ₂ or 75% Ar / 25% CO ₂	*
E2594T1-1/4***	.033	.61	.75	.019	.008	8.9	24.8	4.0	.10	.22		45-50	120,000	15	100% CO ₂ or 75% Ar / 25% CO ₂	*
E308LT1AP-CRYO	.025	.79	1.2	.027	.006	10.5	18.0	.23	.28	.05		< 5 FN**	83,700	45	100% CO ₂ or 75% Ar / 25% CO ₂	*
316LT1-1/4AP-CRYO	.03	.50	.8	.030	.008	12.9	17.5	2.40	.17	.05		< 5 FN**	80,330	38	100% CO ₂ or 75% Ar / 25% CO ₂	*

NOTES:

- Every Mastercor® product is shipped with *actual* chemical certification (MTR)
- Chemical composition values in the chart above are *typical* and were developed in accordance with AWS A5.22-10 procedures. Actual test results may vary depending on welding parameters and base metal composition.
- Ferrite percent were determined by Schaeffler
- Ferrite values may vary depending on specific operating parameters

* Data sheet available at www.midalloy.com

** By WRC 1992

*** Typical chemistry (deposit with 75% AR – 25%CO₂)

Midalloy

ST. LOUIS, MISSOURI
1-800-776-3300

ISO 9001:2015
CERTIFIED
PERRY JOHNSON REGISTRARS, INC.

HOUSTON, TEXAS
1-866-790-9058

www.midalloy.com