

## MIDALLOY MASTERCOR™ E312T1-1/4 AP Flux-Cored Wire

### CLASSIFICATION

- AWS 5.22 Class E312T1-1 and E312T1-4 and ASME SFA 5.22 Class E312T1-1 and E312T1-4  
This product can be run with 100% CO<sub>2</sub> or 75% Argon 25% / CO<sub>2</sub> (UNS W31331)

### DESCRIPTION

- MIDALLOY Mastercor™ E312T1-1/4 AP is an all-position flux-cored wire used to weld all types of stainless steel, low-alloy steel and high strength steel.
- MIDALLOY Mastercor™ E312T1-1/4 AP has excellent slag removal and runs with a spatter free globular transfer.

### APPLICATIONS

- This base material plate specification is listed under most ASTM A-240. There are many product forms that are covered under other ASME SA specifications (i.e. SA 240, A182, A276, etc.).
- MIDALLOY Mastercor™ E312T1-1/4 AP is often used for dissimilar metal compositions of which one component is high in Nickel. This alloy gives a two-phase weld deposit with substantial amounts of ferrite in an austenitic matrix. Even with considerable dilution by austenite-forming elements, such as Nickel, the microstructure remains two-phase and highly resistant to weld metal cracks and fissures. However this is not good for high temperature applications above 600°F.
- MIDALLOY Mastercor™ E312T1-1/4 AP is an excellent choice to weld high Sulfur grades of stainless and low-alloy steels.

### TYPICAL CHEMISTRY

C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu
0.13	29.0	9.0	.03	1.2	.5	.03	.02	.05	.05

### TYPICAL MECHANICAL PROPERTIES

TENSILE STRENGTH	109,000 PSI
YIELD STRENGTH	78,000 PSI
ELONGATION IN 2"	23%

### WELDING PARAMETERS (with CO<sub>2</sub> shielding gas)

DIAMETER	VOLTAGE	AMPERAGE (WIRE FEED SPEED ipm)	
		FLAT	VERTICAL & OVERHEAD
.045"	24-28	130-200 (250 TO 425)	120-160 (225 TO 300)
1/16"	25-30	180-250 (150 TO 250)	180-220 (150 TO 200)

Note: If using mixed gas, voltage can be increased by 2 volts.

### STANDARD PACKAGING

- .045" 33 Lb. Spool
- 1/16" 33 Lb. Spool

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Office and Corporate Warehouse  
630 Axminister Drive  
St. Louis, MO 63026 • 636-349-6000 • 800-776-3300  
Fax 636-349-2240

