

MIDALLOY Mastercor E80T5- Ni3 FLUX-CORED WIRE

CLASSIFICATION

- AWS 5.29 Class E80T5-Ni3 / ASME SFA 5.29 Class E80T5-Ni3

DESCRIPTION

- MIDALLOY Mastercor E80T5-Ni3 flux-cored wire is a low alloy, gas shielded, flux-cored electrode for single and multiple pass welding of certain HSLA steels. It provides a weld deposit that contains about 3.5% Nickel to enhance low temperature toughness.
- This wire can be used for single or multiple pass welding.
- Basic slag system provides excellent low temperature toughness.
- Produces low diffusible hydrogen levels.
- Arc transfer is globular and the bead profile is convex.

APPLICATIONS

- Midalloy E80T5-Ni3 is designed to weld 3% Nickel steels that require a post-weld stress relief, a minimum of 80,000 PSI tensile strength and excellent low temperature toughness. Applications include shipbuilding and tanks used for LNG storage and transportation.
- For the welding of common materials include ASTM A203, A532 Grades LC1 and LC2, A575, A734 as well as other steels containing 1% to 3.5% Nickel.

TYPICAL CHEMISTRY

C	Mn	Si	P	S	Ni
.05	1.3	.20	.009	.010	3.60

Typical Diffusible Hydrogen (per AWS A4.3) < 3ml/100g of weld metal.

TYPICAL MECHANICAL PROPERTIES (Shielding Gas 75 Ar-25% CO2)

TENSILE STRENGTH	90,000 PSI
YIELD STRENGTH	75,000 PSI
% ELONGATION IN 2"	23%
IMPACTS -100°F	38 ft.-lbs.

Note: Post weld heat treatment above 1,150°F (620°C) will reduce impact values.

WELDING PARAMETERS

DIA.	VOLTS	AMPS	Wire feed speed (IPM)	75% Ar25%CO2 flow
1/16"	26-34	250-450	250-350	35-45 CFH
.045"	22-30	200-300	300-450	35-50 CFH

WELDING POSITIONS: Flat and Horizontal

STANDARD PACKAGING

- 33 lb. Spool
- Available sizes: .045", .052", and 1/16"

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