Select 81-Ni2

Low Alloy / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

FEATURES

- Produces beads with good geometry, a smooth rippled surface, and easily removable, thin slag
- Excellent low temperature Charpy impact results due to the 2.5% nickel addition.
- Used to weld steels such as ASTM A203, A572, A575, A734, and steels containing 2% nickel.
- Ideal for applications such as offshore platform construction, earthmoving and minery machinery, and shipbuilding.

CONFORMANCES

AWS A5.29

E80T1-Ni2C-H8
E80T1-Ni2C-JH8
E80T1-Ni2M-H8
E80T1-Ni2M-JH8

DIAMETERS (in [mm])

1/16 (1.6), 5/64 (2.0), 3/32 (2.4)

POSITIONS

SHIELDING GAS

100% CO2, 75-80% Ar / Balance CO2
Flow Rate: 40 - 50 CFH

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WELD DEPOSIT CHEMISTRY (WT%)

Shielding Gas	C	Mn	Ni	P	S	Si
100%CO2	0.06	1.13	2.58	0.005	0.010	0.23
75%Ar / 25%CO2	0.06	1.13	2.45	0.005	0.011	0.33

TYPICAL MECHANICAL PROPERTIES

Shielding Gas	Tensile Strength ksi (MPa)	Yield Strength ksi (MPa)	Elongation (%)	Weld Condition	PWHT Temp	CVN @ -76°F (-60°C) ft-lb (J)
100%CO2	91 (628)	76 (528)	27	As-Welded	-	59 (80)
75%Ar / 25%CO2	97 (669)	84 (579)	26	As-Welded	-	49 (66)

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RECOMMENDED WELDING PARAMETERS **

Diameter in (mm)	Shielding Gas	Position	WFS* in/min (m/min)	Amps	Volts	CTWD* in (mm)
1/16 (1.6 mm)	100% CO2	Flat & Horizontal	235 (6.0)	245	24	3/4 (19)
		Flat & Horizontal	280 (7.1)	275	27	3/4 - 1 (19 - 25)
		Flat & Horizontal	325 (8.3)	320	29	3/4 - 1 (19 - 25)
5/64 (2.0 mm)	100% CO2	Flat & Horizontal	145 (3.7)	280	25	1 (25)
		Flat & Horizontal	190 (4.8)	320	27	1 - 1 1/4 (25 - 32)
		Flat & Horizontal	230 (5.8)	365	29	1 - 1 1/4 (25 - 32)
3/32 (2.4 mm)	100% CO2	Flat & Horizontal	120 (3.0)	275	25	1 1/4 (32)
		Flat & Horizontal	150 (3.8)	335	27	1 1/4 - 1 1/2 (32 - 38)
		Flat & Horizontal	165 (4.2)	400	29	1 1/4 - 1 1/2 (32 - 38)

** WFS = Wire Feed Speed, CTWD = Contact Tip To Work Distance*
***The parameters listed are recommended starting points of operation and the ranges for amperage, wfs, and voltage could be extended based on fitness for application. For products with "all-position" capability, as determined and listed in classification, the position recommendation can be determined based on operator skill and material thickness and isn't limited to the listing.*

For welding in 75-80% Ar / Balance CO2, decrease by 1 - 1.5 volts.

APPROVALS

Agency	Approval	Shielding Gas	Diameter(s) in (mm)
CWB CSA W48-23	E550T1-C1A6-Ni2-H8 (E550T1-Ni2C-H8)	C1 (100%CO2)	3/32 (2.4)
	E550T1-M21A6-Ni2-H8 (E550T1-Ni2M-H8)	M21 (75%Ar / 25%CO2)	3/32 (2.4)

PACKAGING (lbs (kgs))

33 (15) Spools, 60 (27.2) Coils, 500 (226.8) Round Drum, 800 (362.9) Hex Drum, 900 (408.2) Hex Drum

**Some packaging options may not be available depending on diameter and product. Special package options may be available upon request.*

STORAGE AND HANDLING

All products should be stored in original packaging, in dry conditions and handled with care. For more information refer to our website.

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