TNC-70A

AWS A5.11 ENiCrFe-1
EN ISO 14172-E Ni 6062
JIS Z 3224 DNiCrFe-1J

Characteristics and Applications:

TNC-70A is a low hydrogen type covered electrode (for DC). The normal composition of the weld metal includes 70Ni, 15Cr, 8Fe, 3.5Mn, 2.5Nb, and provides excellent mechanicl properties, good heat resistance, corrosion resistance and good toughness especially at low temperature. It is suitable for the build-up welding in all positions of Inconel, Inconel to stainless steel, and electrodes with diameters under ¢3.2(mm).

Notes on usage:

1. Be sure to clean up the contaminations on the base metal, groove and pass to pass with stainless steel brush.
2. Dry the electrodes at 350~400℃ for 60 minutes before using. Take out a batch of half day consumption and keep at 100~150℃ during welding process.
3. Use back-step method to prevent arc starting from blowholes and hold for 3-5 seconds at every end-up.
4. Maintain short arc length to prevent porosity problem.
5. Do not exceed the range of recommended current. Over heat input might decrease the impact value.

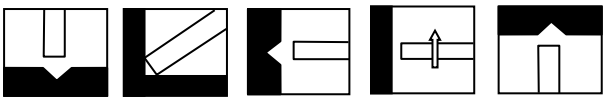
Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Cr	Ni	Nb+Ta	Fe	Co
AWS	≦0.08	≦3.5	≦0.75	≦0.03	≦0.015	13.0-17.0	≧62.0	1.5-4.0	≦11.0	-
EN ISO	≦0.08	≦3.5	≦0.8	-	-	13.0-17.0	≧62.0	(Nb) 0.5-4.0	≦11.0	-
Typical value	0.04	2.3	0.5	0.012	0.007	14.00	78.00	1.60	3.5	0.025

Typical mechanical properties of weld metal:

	降伏強度 MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf) -196°C (-320°F)
AWS	-	≧550(80)	≧30	-
EN ISO	≧360(52)	≧550(80)	≧27	-
Typical value	395(57)	600(87)	34	89(66)

Welding position:



Sizes and recommended current range (DC＜+＞):

Diameter (mm)		3.2	4.0
Length (mm)		350	350
Amps	F	90-120	120-160
	V&OH	70-110	90-130

* The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and TienTai Electrode Co., Ltd. expressly disclaims any liability incurred from any reliance thereon. Typical data is obtained when welded and tested in accordance with AWS specification. Other tests and procedures may produce different results. No data is to be construed as recommendation for any welding condition or technique not controlled by TienTai Electrode Co., Ltd.

COVERED ELECTRODES

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