Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrod Ni-1

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Benjamin Mousa	Tero Tolonen	Jay A Coubrough	EN006164	None	2013-08-01	1 (2)

REASON FOR ISSUE

New product name.

GENERAL

A continuous solid nickel based electrode alloyed with about 3 % Ti for welding of high purity nickel (min 99.6 %Ni), ordinary wrought nickel and nickel with reduced C content. The weld metal can be used in a wide range of applications were the construction is working with corrosive media.

Shielding Gas: I1, I2, I3 (EN 439)

Alloy Type: Nickel (Ni + 2.5 % Ti)

CLASSIFICATIONS Wire Electrode

SFA/AWS A5.14	ERNi-1
EN ISO 18274	S Ni 2061 (NiTi3)

CHEMICAL COMPOSITION

	All Weld Metal (%)	Wire/Strip (%)	
	Nom	**Min**	**Max**
C	0.02		0.05
Si	0.3		0.7
Mn	0.4		0.8
P	0.01		0.03
S	0.01		0.01
Ni	93	93.0	
Cu	0.1		0.2
Al	0.1		1.0
Ti	3	2.0	3.5
Fe	0.2		0.7
Others tot			0.50

MECHANICAL PROPERTIES OF WELD METAL

	All Weld Metal
	As welded
Properties	**Min**
Rp0.2 (MPa)	200
Rm (MPa)	410
A5 (%)	25
at 20°C (J)	130

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ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	H		Feed		U	
Ø	Min	Max	Nom	Nom	Min	Max	Min	Max	Min	Max
1.0	100	200	15		2,5	5,5	6	13	21	27
1.2	160	280	18		3,6	6	6	10	24	30

W = Gas consumption (l / min)

η = Recovery, g weld metal / 100g wire (%)

H = Deposit rate (kg weld metal / hour arc time)

Feed = Feeding rate (m/min)

U = Arc voltage (V)