



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrod NiCrMo-3

Prepared by Mikael Mimer	Qualified by Tero Tolonen	Approved by Mikael Mimer	Reg no EN006315	Cancelling EN006170	Reg date 2013-11-29	Page 1 (2)
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REASON FOR ISSUE

Comment about chemical composition revised.

GENERAL

A continuous solid corrosion and heat-resisting Ni-Cr-Mo wire for welding of high alloyed heat-resisting and corrosion resisting materials, 9%Ni-steels and similar steels with high notch toughness at low temperatures. Also for joining of dissimilar metals of the types mentioned. The weld metal has very good mechanical properties at high and low temperatures. Good resistance to pitting and stress corrosion. This alloy is extensively required for weld cladding of valve components and pipe inner diameters in oil and gas applications.

Shielding Gas: I1, I3 (EN ISO 14175)

Alloy Type: Alloyed nickel (Ni + 22 % Cr + 9 % Mo - 3.5 % Nb)

CLASSIFICATIONS Wire Electrode

SFA/AWS A5.14 ERNiCrMo-3
EN ISO 18274 S Ni 6625

APPROVALS

DNV For NV 1.5Ni up to NV
 9Ni
VdTÜV 12413

CHEMICAL COMPOSITION

Wire/Strip (%)

	Min	Max
C		0.03
Si		0.20
Mn		0.30
P		0.008
S		0.005
Cr	20.0	23.0
Ni	60.0	
Mo	8.0	10.0
Cu		0.30
Al		0.30
Ti		0.30
Fe		0.5
Nb+Ta	3.15	4.15
Others tot		0.50

Comments:
Up to 20% of Nb+Ta can be Ta.

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

Properties	As welded		As welded+	Stress relieved 550°C 15h	SHT 1175°C 0.5h	SHT+ 1175°C 0.5h
	Min	Typ	Typ	Typ	Typ	Typ
Rp0.2 (MPa)	420	500	380	490	375	270
Rm (MPa)	700	780	580	796	765	590
A5 (%)	25	45	48	40	46	46
Z (%)		55	53	48	54	52
at 20°C (J)	120	130		140	185	
at -105°C (J)		120			170	
at -196°C (J)	40	110		120	150	
Comments:	Tested at RT		Comments: Tested at 550°C	Comments: Tested at RT	Comments: Tested at RT	Comments: Tested at 550°C



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OTHER DATA

The electrode is used for welding of e.g.

Ni-alloy type:

625 (Werkstoffnr 2.4856)

825 (Werkstoffnr 2.4858)

800 (Werkstoffnr 1.4876)

9%Ni.steel: X 8Ni9

Austenitic stainless steels:

X10NiCrAlTi 32 20 (1.4876)

X2NiCrMoCu 25 20 6 (1.4529)

X2CrNiMoCuN 20 18 6

The wire is also used for welding of dissimilar joints containing Non- and Low alloyed steel.
