



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrod 13.25

Prepared by Mats Linde	Qualified by Tero Tolonen	Approved by Per-Erik Andersson	Reg no EN006106	Cancelling EN002891	Reg date 2013-06-04	Page 1 (2)
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REASON FOR ISSUE

Mn adjusted.

GENERAL

A copper coated, low-alloyed, nickel-molybdenum-titanium (1,0 % Ni, 0,3% Mo, 0,1% Ti), solid wire for GMAW of low alloyed high tensile strength steels and fine grained steels for use in constructions such as bridges, off-shore and hoists with a minimum yield strength less than 610 Mpa. The alloy has good impact properties down to -60°C.

When used in mechanical pipe welding in narrow groove, yield strengths in excess of 700 MPa may be obtained, allowing overmatching of X80 pipeline steel.

Shielding Gas: Ar + 15-25 % CO₂, CO₂

Alloy Type: Low alloyed (1 % Ni, 0.3 % Mo, 0.1 % Ti)

CLASSIFICATIONS Wire Electrode

SFA/AWS A5.28 ER100S-G

APPROVALS

Not applicable

CHEMICAL COMPOSITION

	All Weld Metal (%)	Wire/Strip (%)	
	Nom	Min	Max
	80Ar/20CO ₂ (M21)		
C	0.07	0.06	0.10
Si	0.5	0.50	0.75
Mn	1.4	1.60	1.90
P	0.01		0.015
S	0.01		0.015
Ni	1	0.85	1.15
Mo	0.3	0.25	0.50
Ti	0.1	0.10	0.20

MECHANICAL PROPERTIES OF WELD METAL

Properties	All Weld Metal			
	AWS 80Ar/20CO ₂		AWS 80Ar/20CO ₂	AWS 80Ar/20CO ₂
	As welded		Stress relieved 620°C 15h	Stress relieved 620°C 15h
	Min	Typ	Typ	Typ
Rp0.2 (MPa)		620	640	640
Rm (MPa)	690	700	700	700
A4-A5 (%)		20	24	24
at -20°C (J)		130	140	140
at -40°C (J)		90	110	110
at -60°C (J)		70	70	70



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ECONOMICS & CURRENT DATA

Dimension (mm) Ø	Current (A)		W Nom	η Nom	H		Feed			U	
	Min	Max			Min	Max	Min	Max	Min	Max	
1.0	80	280	15		1	5,4	2,7	14,7	18	28	
1.2	120	350	18		1,5	6,6	2,7	12,4	20	33	

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)