



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrod 13.23

Signed by Mats Linde	Approved by Peter Jeirud/Barbro Karlström	Reg no EN003276	Cancelling EN003275	Reg date 2006-03-31	Page 1 (2)
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REASON FOR ISSUE

Weld chemistry corrected.

GENERAL

A copper coated, Ni-alloyed (0,9% Ni), solid wire for GMAW of low-temperature fine-grained steels. The wire provides good impact toughness down to -50 °C and is especially suitable for use in the offshore industry.

Shielding Gas: M21 (EN 439)

Alloy Type: Low alloyed (1 % Ni)

CLASSIFICATIONS Wire Electrode

SFA/AWS A5.28

ER80S-Ni1

APPROVALS

BV

SA4Y40M

CHEMICAL COMPOSITION

	All Weld Metal (%)	Wire/Strip (%)	
	Nom	Min	Max
	Ar/1-5%O2 (M13)		
C	0.08	0.07	0.12
Si	0.7	0.40	0.80
Mn	1.0	0.80	1.20
P	0.01		0.025
S	0.01		0.025
Cr	0.01		0.15
Ni	0.9	0.80	1.00
Mo	0.25	0.20	0.35
V	0.01		0.05
Cu	0.15		0.35
Others tot			0.50

MECHANICAL PROPERTIES OF WELD METAL

Properties	All Weld Metal	
	Min	Typ
	AWS 80Ar/20CO2	
	As welded	
Rp0.2 (MPa)	470	480
Rm (MPa)	550	560
A4-A5 (%)	24	30
Charpy V at 20°C (J)		150
Charpy V at 0°C (J)		130
Charpy V at -46°C (J)	27	70
Charpy V at -60°C (J)		20



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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
0.8	40	170	12		0,4	2,6	2	10,8	16	22
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
1.6	225	480	20		3,3	0	3,1	8,1	26	38

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)