



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrod 19.49

Prepared by MALI	Qualified by Tero Borg	Approved by Jay A Coubrough	Reg no EN007206	Cancelling EN003333	Reg date 2016-04-20	Page 1 (2)
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REASON FOR ISSUE

Welding Parameters Revised

GENERAL

A continuous solid Cu-Ni wire for welding of similar alloys like 90Cu10Ni-, 80Cu20Ni- and 70Cu30Ni-alloys. The nickel addition strengthens the weld metal and improves the corrosion resistance, particularly against salt water. The alloy is used for overlay welding of steels and widely used for welding of Cu-Ni components to desalination plants.

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

Alloy Type: Alloyed copper (Cu + 30 % Ni)

CLASSIFICATIONS Wire Electrode

SFA/AWS A5.7 ERCuNi
EN 14640 S Cu 7158 (CuNi30)

APPROVALS

Not applicable

CHEMICAL COMPOSITION

	All Weld Metal (%)		Wire/Strip (%)	
	Nom	Min	Max	
C			0.05	
Si	0.05		0.1	
Mn	0.8	0.50	1.00	
P	0.04		0.01	
S			0.01	
Ni	31	29.0	32.0	
Cu				
Al	0.001		0.03	
Pb	0.005		0.007	
Fe	0.6	0.40	0.75	
Ti+Nb		0.20	0.50	
Others tot			0.4	
	Comments: a) Cu rest	Comments: Cu balance		

MECHANICAL PROPERTIES OF WELD METAL

Properties	All Weld Metal	
	As welded	Typ
Rp0.2 (MPa)	180	
Rm (MPa)	350	
A4-A5 (%)	40	



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ECONOMICS & CURRENT DATA

Dimension (mm) Ø	Current (A)		W Nom	η Nom	H		Feed			U Max
	Min	Max			Min	Max	Min	Max	Min	
0.8	60	165	15				4	13	13	17.5
1.0	80	210	15				4	12	12.5	18
1.2	150	320	15				5	11.5	16	29

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)