



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrodur 38 G M

Prepared by Benjamin Mousa	Qualified by Tero Tolonen	Approved by Per-Erik Andersson	Reg no EN006324	Cancelling EN006323	Reg date 2014-01-29	Page 1 (2)
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REASON FOR ISSUE

Product re-naming (former OK Autrod 13.89)

GENERAL

A copper coated, low-alloyed solid GMAW wire used for hard facing and building up, giving a wear resistant weld metal with a hardness between 35-40 HRC. Used for repair and maintenance of e.g. tracks, rails, wheels, rolls, railcrossings, shafts, shovel teeth and other parts on digging machines, tools like dies etc.

Shielding Gas: M12, M21, C1 (EN ISO 14175) **Alloy Type:** Low alloyed (0.7 C, 2 % Mn, 1 % Cr, 0.2 % Ti)

CLASSIFICATIONS Wire Electrode

EN 14700 Fe2

APPROVALS

Not applicable

CHEMICAL COMPOSITION

	All Weld Metal (%)		Wire/Strip (%)	
	Shielding gas;CO2 Nom	Shielding gas;80Ar/20CO2 Nom	Min	Max
C	0.6	0.6	0.65	0.75
Si	0.2	0.4	0.2	0.6
Mn	1.0	1.4	1.80	2.20
P	0.01	0.01		0.025
S	0.01	0.01		0.025
Cr	1.0	1.0	0.90	1.20
Al				0.10
Ti	0.05	0.06	0.10	0.25

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)



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OTHER DATA

Typical hardness:

3 layers with,

CO₂: (As welded):.....HRC = 38

CO₂: (650°C/1h):.....HRC = 30

Ar/CO₂: (As welded):.....HRC = 40

Good resistance to tempering up to approx. 550 °C.

The weld metal is surface hardenable.

Preheating to about 250 °C is recommended if the base material is crack sensitive.
