



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrodur 56 G M

Prepared by Benjamin Mousa	Qualified by Tero Tolonen	Approved by Per-Erik Andersson	Reg no EN006325	Cancelling None	Reg date 2014-01-29	Page 1 (2)
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REASON FOR ISSUE

Product re-naming (former OK Autrod 13.91)

GENERAL

A copper coated, low-alloyed solid GMAW wire used for hard facing and building up highly wear resistant layers on tools and machinery parts, driving rollers, digging tools etc.

The hardness of the weld metal becomes 50-60 HRC.

Shielding Gas: M21, C1 (EN ISO 14175)

Alloy Type: Low alloyed (0.45 % C, 3 % Si, 9 % Cr)

CLASSIFICATIONS Wire Electrode

EN 14700 Fe8

APPROVALS

Not applicable

CHEMICAL COMPOSITION

	All Weld Metal (%)		Wire/Strip (%)	
	Shielding gas: CO2 Nom	Shielding gas: 80Ar/20CO2 Nom	Min	Max
C	0.4	0.4	0.40	0.50
Si	2.6	2.7	2.70	3.30
Mn	0.3	0.3		0.80
P	0.02	0.02		0.040
S	0.01	0.01		0.030
Cr	8.8	9.0	8.00	10.00

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	H		Feed			U
	Min	Max			Nom	Min	Max	Min	Max	
\emptyset			Nom	Nom	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
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)



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OTHER DATA

The weld metal is hardenable at 1000-1050 °C, quenched in oil or compressed air.

Preheating to 200-300 °C is recommended if the base material is crack sensitive.

The weld metal is workable only by grinding.

Typical hardness Rockwell C (3 layers)

-Shielding gas CO₂

--As Welded HRC=56

--Stress relieved (400°C 1h).. HRC=51

--Stress relieved (550°C 1h).. HRC=40

--Stress relieved (650°C 1h).. HRC=35

-Shielding gas 80Ar20CO₂

--As Welded HRC=55