



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrodur 58 G M

Prepared by Benjamin Mousa	Qualified by Tero Tolonen	Approved by Per-Erik Andersson	Reg no EN006326	Cancelling None	Reg date 2014-01-29	Page 1 (2)
-------------------------------	------------------------------	-----------------------------------	--------------------	--------------------	------------------------	---------------

REASON FOR ISSUE

Product re-naming (former OK Autrod 13.90)

GENERAL

A copper coated, low-alloyed solid GMAW wire used for hard facing and building up highly wear resistant layers on machinery parts like shafts, feed screws, driving rollers, cutting tools, dies and other parts subjected to strong wear. Hardness of the weld metal becomes 50-60 HRC.

Shielding Gas: M21, C1 (EN ISO 14175)

Alloy Type: Low alloyed (1.1 % C, 2 % Mn, 1.8 % Cr, 0.2 % Ti)

CLASSIFICATIONS Wire Electrode

EN 14700 ZFe8

APPROVALS

Not applicable

CHEMICAL COMPOSITION

	All Weld Metal (%)		Wire/Strip (%)	
	Shielding gas: CO2 Nom	Shielding gas: 80Ar20CO2 Nom	Min	Max
C	0.8	0.9	1.00	1.20
Si	0.4	0.4	0.2	0.6
Mn	1.5	1.6	1.80	2.20
P	0.01	0.01		0.025
S	0.01	0.01		0.025
Cr	1.6	1.6	1.70	1.90
Al				0.10
Ti	0.08	0.10	0.15	0.30

ECONOMICS & CURRENT DATA

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

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)



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrodur 58 G M

Prepared by Benjamin Mousa	Qualified by Tero Tolonen	Approved by Per-Erik Andersson	Reg no EN006326	Cancelling None	Reg date 2014-01-29	Page 2 (2)
-------------------------------	------------------------------	-----------------------------------	--------------------	--------------------	------------------------	---------------

OTHER DATA

The weld metal is hardenable at approx. 850 °C, quenched in oil. Preheating to 200-300 °C is recommended if the base material is crack sensitive.

Typical hardness Rockwell C (3 layers)

-Shielding gas CO₂

--As Welded HRC=58

--Stress relieved (400°C 1h).. HRC=49

--Stress relieved (550°C 1h).. HRC=44

--Stress relieved (650°C 1h).. HRC=39

-Shielding gas 80Ar20CO₂

--As Welded HRC=56