



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrod 312

Signed by Mats Linde	Approved by Per-Åke Pettersson/Christos Skodras	Reg no EN004153	Cancelling EN002990	Reg date 2007-09-20	Page 1 (2)
-------------------------	--	--------------------	------------------------	------------------------	---------------

REASON FOR ISSUE

EN 12072 replaced by EN ISO 14343.

GENERAL

A continuous solid corrosion resisting chromium-nickel wire for welding of stainless steels of the 29% Cr, 9% Ni types.

OK Autrod 312 has a good oxidation resistance at high temperatures due to its high content of Cr. The alloy is widely used for joining dissimilar steels especially if one of the component is fully austenitic and steels that are difficult to weld, i.e. machine components, tools, austenitic manganese steels.

Shielding Gas: M12, M13 (EN439)

Alloy Type: Ferritic-austenitic (29 % Cr - 9 % Ni)

CLASSIFICATIONS Wire Electrode

EN ISO 14343 G 29 9
SFA/AWS A5.9 ER312

APPROVALS

Not applicable

CHEMICAL COMPOSITION

	All Weld Metal (%)	Wire/Strip (%)	
	Nom	Min	Max
C	0.1		0.15
Si	0.5	0.30	0.65
Mn	1.7	1.4	2.2
P	0.020		0.030
S	0.010		0.020
Cr	29	29.5	31.5
Ni	9	8.5	10.5
Mo			0.3
Cu			0.3
Others tot			0.50

MECHANICAL PROPERTIES OF WELD METAL

Properties	All Weld Metal	
	As welded	
	Min	Typ
Rp0.2 (MPa)	450	610
Rm (MPa)	650	770
A4-A5 (%)	15	20
Charpy V at 20°C (J)		50



Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrod 312

Signed by Mats Linde	Approved by Per-Åke Pettersson/Christos Skodras	Reg no EN004153	Cancelling EN002990	Reg date 2007-09-20	Page 2 (2)
-------------------------	--	--------------------	------------------------	------------------------	---------------

ECONOMICS & CURRENT DATA

Dimension (mm) Ø	Current (A)		W		η		H		Feed		U	
	Min	Max	Nom	Nom	Min	Max	Min	Max	Min	Max	Min	Max
0.8	50	140	12		0,8	2,7	3,4	11	16	22		
1.0	80	190	15		1,1	3,1	2,9	8,4	16	24		
1.2	180	280	18		2,6	4,5	4,9	8,5	20	28		
1.6	230	350	22		3	5,2	3,2	5,5	24	28		

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)