Product Data Sheet

G 'Gas-shielded metal-arc welding'

OK Autrod 5356

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Mats Linde	Tero Tolonen	Michael Spieß	EN006199	EN005115	2013-09-04	1 (2)

REASON FOR ISSUE

RINA added and shielding Gas standard up date.

GENERAL

OK Autrod 5356 is the most widely used welding alloy and can be classified as a general purpose type filler alloy. OK Autrod 5356 is typically chosen because of its relatively high shear strength. The 5XXX alloy base material, welded with OK Autrod 5356, with a weld pool chemistry greater than 3 % Mg and service temperatures in excess of 65 °C are susceptible to stress corrosion cracking. The alloy is non-heat treatable.

Shielding Gas: I1, I3 (EN ISO 14175) **Alloy Type:** AlMg 5

CLASSIFICATIONS Wire

JIS Z 3232	A53556

CLASSIFICATIONS Wire Electrode

SFA/AWS A5.10	ER5356
EN ISO 18273	S Al 5356 (AlMg5Cr(A))

APPROVALS

ABS	ER 5356	For lots starting with RB
BV	WB	
CE	EN 13479	
CWB	AWS A5.10	
DB	61.039.01	
DNV	5356	
JIS	JIS Z 3232	
LR	WB/I1	
RINA	WC	
VdTÜV	04664	

CHEMICAL COMPOSITION

Wire/Strip (%)

	Min	Max
Si		0.25
Mn	0.05	0.20
Cr	0.05	0.20
Cu		0.10
Ti	0.06	0.20
Zn		0.10
Fe		0.40
Be		0.0003
Mg	4.5	5.5
Other each		0.05
Others tot		0.15

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MECHANICAL PROPERTIES OF WELD METAL

	All Weld Metal
	As welded
Properties	**Min**
Rp0.2 (MPa)	110
Rm (MPa)	235
A4-A5 (%)	17
	Comments: Typical values: Interpass temperature 150°C.

Comments:

THIS INFORMATION IS BASED ON DATA DEVELOPED UNDER LABORATORY CONDITIONS AND IS DESIGNED AS A GUIDELINE ONLY. INDIVIDUAL CONDITIONS, WELDING EQUIPMENT AND ENVIRONMENT CAN AFFECT RESULTS.

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	H		Feed		U	
Ø	Min	Max	Nom	Nom	Min	Max	Min	Max	Min	Max
0.8	60	170	15						13	24
0.9	60	170	15						13	24
1.0	90	210	16						15	26
1.2	140	260	19						20	29
1.6	190	350	25						25	30
2.0										
2.4	280	400	30						26	31

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)

OTHER DATA

Clean material is essential for a good weld quality.

Remove oxide, dirt, oil, humidity etc. before welding.

If brushing use a stainless steel wire brush.Preheating: is not required for welds in sections up to 20 mm but risk of porosity can be reduced by preheating sections over 10 mm. Preheating temperature is usually 150-200 °C.