Product Data Sheet

G 'Gas-shielded metal-arc welding'

Weld G3Si1

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Mirjam Hamsten	Tero Tolonen	Per-Erik Andersson	EN006756	EN006745	2015-06-29	1 (2)

REASON FOR ISSUE

DB approval

GENERAL

A copper coated, G3Si1 solid wire for GMAW of all general structural and engineering unalloyed and low-alloyed carbon-manganese steels. The electrode may be welded with either a gas mixture or with pure CO2 as the shielding gas.

Shielding Gas: M21, C1 (EN ISO 14175)

Alloy Type: Carbon-manganese steel (Mn/Si-alloyed)

CLASSIFICATIONS Weld Metal

EN ISO 14341-A	G 38 2 C1 3Si1
EN ISO 14341-A	G 42 3 M21 3Si1

CLASSIFICATIONS Wire Electrode

EN ISO 14341-A	G 3Si1
SFA/AWS A5.18	ER70S-6

APPROVALS

CE	EN 13479
DB	42.039.39
VdTÜV	13038

CHEMICAL COMPOSITION

Wire/Strip (%)

	Min	Max
C	0.06	0.14
Si	0.80	1.00
Mn	1.40	1.60
P		0.025
S		0.025

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

	EN CO2 (C1) As welded		EN 80Ar/20CO2 (M21) As welded	
Properties	**Min**	**Max**	**Min**	**Max**
ReL (MPa)	380		420	
Rm (MPa)	510	600	510	640
A4-A5 (%)	22		22	
Charpy V at -20°C (J)	47			
Charpy V at -30°C (J)			47	

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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	180	14	95	0,8	2,6	3,2	11	18	22
1.0	80	250	16	96	1	4,8	2,7	13	18	30
1.2	120	330	18	97	1,3	6,9	2,3	13	18	34

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)