Weld G3Si1

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.

Classifications Weld Metal	EN ISO 14341-A : G 38 2 C1 3Si1 EN ISO 14341-A : G 42 3 M21 3Si1
Classifications Wire Electrode	SFA/AWS A5.18 : ER70S-6 EN ISO 14341-A : G 3Si1
Approvals	CE EN 13479 DB 42.039.39 NAKS/HAKC 1.2MM VdTÜV 13038

Approvals are based on factory location. Please contact ESAB for more information.

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

Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
EN 80Ar/20CO2 (M21)			
As Welded	470 MPa	560 MPa	26 %

Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
EN 80Ar/20CO2 (M21)		
As Welded	-30 °C	70 J

Typical Wire Composition %

C	Mn	Si
0.078	1.46	0.85

Deposition Data

Diameter	Current	Voltage	Wire Feed Speed	Deposition Rate
0.8 mm	60-180 A	18-22 V	3.2-11.0 m/min	0.8-2.6 kg/h
1.0 mm	80-250 A	18-30 V	2.7-13.0 m/min	1.0-4.8 kg/h
1.2 mm	120-330 A	18-34 V	2.3-13.0 m/min	1.3-6.9 kg/h

Recommended Welding Parameters

Wire Diameter
1.6 mm

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