

# SG3 - G4Si1

Mild Steel WIRE/GMAW

## Standards

EN/ISO-Standard - 14341-A

AWS-Standard - A5.18

EN/ISO-Classification - G 42 3 C1 / G 46 4 M21 4Si1

AWS-Classification - ER 70S-6

## Features and Applications

- A copper coated solid wire suitable for single pass or multipass welding of unalloyed and low-alloyed carbon-manganese steels.
- The higher Si-Mn content increases the weld metal strength and leaves a good bead appearance.
- Designed for semi-automatic and full-automatic GMAW applications.
- Good mechanical properties at sub-zero temperatures down to -40°C.
- Vacuum-sealed aluminium foil packaging to prevent moisture absorption.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on boilers, industrial machinery, bridges, shipbuilding, automotive, rail, structural and engineering fabrications.
- Green wire is produced using virgin raw materials sourced from specialised steel mills, which ensures consistent reliability and quality.
- **Test Certificates can be found online @wilkinsonstar247.com**



## Typical Base Materials

S185, S235, S275, S355 - Grade A, B, D, AH32 to DH36 - L210, L240, L290, L360, L240NB, L290NB, L360NB, L360QB, L240MB, L290MB, L360MB, L415MB - X42, X46, X52, X60 - P235T1, P235T2, P275T1 - P275T2, P355N - P235GH, P265GH, P295GH, P355GH - S275, S355, S420, S275M, S275ML, S355M, S355ML, S420M, S420ML, S460, P460, S460ML\*

\* Illustrative, not exhaustive list

## Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

## Shielding Gases

EN ISO 14175 - C1, M21

## Polarity

DC (+)

## Chemical Composition % (Typical)

C %	Si %	Mn %	P %	S %	Cu % <sup>a</sup>	Cr %	Ni %	Mo %	Al %	V %	Zr+Ti %
0.08	0.95	1.70	<0.020	<0.020	<0.25	<0.15	<0.15	<0.050	<0.020	<0.030	<0.15

<sup>a</sup> (includes copper coating)

## Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010301508	0.80	15	D300 PLW	72
3010301510	1.00	15	D300 PLW	72
3010301512	1.20	15	D300 PLW	72

Drums also available.

## Welding Parameters

Ø mm	0.80	1.00	1.20
Current (A)	60-200	80-300	120-380
Voltage (V)	18-24	18-32	18-34

## Mechanical Properties (Typical) - C1

Tensile Strength (N/mm <sup>2</sup> )	Yield Strength (N/mm <sup>2</sup> )	Elongation (%)	Impact Strength (J)	Test Temperature
570	460	30	58	-30°C

## Mechanical Properties (Typical) - M21

Tensile Strength (N/mm <sup>2</sup> )	Yield Strength (N/mm <sup>2</sup> )	Elongation (%)	Impact Strength (J)	Test Temperature
590	490	28	88	-40°C

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.

**Liability:** Whilst all reasonable efforts have been made to ensure the accuracy of the information contained, this information is subject to change without notice and can be only considered as suitable for general guidance.



Exclusive Partnership



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