

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 % ^a | 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 |

^a (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 ²) | Yield Strength (N/mm ²) | Elongation (%) | Impact Strength (J) | Test Temperature |
|---------------------------------------|-------------------------------------|----------------|---------------------|------------------|
| 570 | 460 | 30 | 58 | -30°C |

Mechanical Properties (Typical) - M21

| Tensile Strength (N/mm ²) | Yield Strength (N/mm ²) | 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

