# TECHNICAL DATA SHEET

# SG2 - G3Si1

# Mild Steel MIG/GMAW

#### **Standards**

EN/ISO-Standard - 14341-A EN/ISO-Classification - G 42 3 C1 / G 42 4 M21 3Si1 AWS-Standard - A5.18 **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.
- Good mechanical properties at sub-zero temperatures down to -40°C.
- Vacuum-sealed plastic bag packaging to prevent moisture absorption.
- Fitted with alignment hole clip to ensure smooth feeding.
- Precision layer wound for superior wire feeding characteristics.
- Typically used on boilers, industrial machinery, bridges, shipbuilding, automotive, rail, structural and engineering fabrications etc.
- 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\*

\* Illustrative, not exhaustive list

#### **Welding Positions**

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

#### **Shielding Gases**

EN ISO 14175 - C1, M21

#### **Polarity**

MAG DC (+)

## Welding Parameters

Ø mm	0.80	1.00	1.20		
Current (A)	60-180	80-230	120-350		
Voltage (V)	18-22	20-28	26-34		

#### Mechanical Properties (Typical) - C1

Tensile Strength			Impact	Test	
(N/mm²)			Strength (J)	Temperature	
540	440	30	70	-30°C	

## Mechanical Properties (Typical) - M21

Tensile Strength	Yield Strength	Elongation	Impact	Test		
(N/mm²)	(N/mm²)	(%)	Strength (J)	Temperature		
580	460	26	90			

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

# **Chemical Composition % (Typical)**

<b>C</b> %	Si %	Mn %	P %	<b>S</b> %	Cu %a	Cr %	Ni %	Mo %	AI %	<b>V</b> %	Zr+Ti %
0.07	0.85	1.45	<0.025	<0.025	< 0.35	<0.15	<0.15	< 0.15	<0.020	< 0.030	<0.15

<sup>&</sup>lt;sup>a</sup> (includes copper coating)

#### **Packaging Data**

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
3010200449	0.80	15	BS300 PLW	72
3010200451	1.00	15	BS300 PLW	72
3010200453	1.20	15	BS300 PLW	72

1kg, 5kg, D300 & Drums also available.

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.





