## **TECHNICAL DATA SHEET**

Mild Steel TIG/GTAW

# ER 70S-6 (A18)

### **Standards**

EN/ISO-Standard - 636-A EN/ISO-Classification - W 42 4 3Si1 AWS-Standard - A5.18 AWS-Classification - ER 70S-6

## **Features and Applications**

- A copper coated wire containing high levels of manganese and silicon for stronger deoxidizing power where stringent cleaning procedures are not possible.
- The high silicon content increases the fluidity of the weld pool, creating a smoother bead appearance and resulting in minimal post-weld grinding.
- Good mechanical properties at sub-zero temperatures down to -40°C.
- 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

Shielding Gases	Polarity
EN ISO 14175 - TIG: I1 (Argon)	TIG DC (-)

## **Mechanical Properties (Typical)**

Tensile Strength	Yield Strength	Elongation	Impact Strength	Test
(N/mm²)	(N/mm²)	(%)	(J)	Temperature
550	450	>24	>80	-40°C

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

## Chemical Composition of Weld Metal % (Typical)

<b>C</b> %	Si %	Mn %	<b>P</b> %	<b>S</b> %	Cu %ª	<b>Cr</b> %	Ni %	<b>Mo</b> %	AI %	<b>V</b> %	Zr + Ti %
0.07	0.85	1.45	<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 Length (mm)	Package Weight (Kg)	Package Type
3010300154	1.00	1000	5	Cardboard Tube
3010300155	1.20	1000	5	Cardboard Tube
3010300156	1.60	1000	5	Cardboard Tube
3010300158	2.40	1000	5	Cardboard Tube
3010300159	3.20	1000	5	Cardboard Tube

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