

SG3

TIG/GTAW wire for mild steel

Product name	IABCO SG3 TIG
Classification EN ISO	636-A: W4Si1 / W 46 4 4Si1
Material No.	1.5130
Classification AWS	A5.18: ER70S-6
Approvals	-
Applications	TIG/GTAW rod for welding standard CMn structural steels. Typical applications would include shipbuilding, pressure vessels and construction.
Base materials	For steels up to a yield strength of 460MPa (65ksi). A36, A106 grades A/B/C, A139, A210 grades A1/C, A214, A216 grades WCA/WCB/WCC, A234 grade WPB, A334 grade 1, API 5L grades X42-X60. S185-E360, S235JR-S355JR, S235J0-S450J0, S235J2-S355J2, S275N-S460N, S275M-S460M, S460Q, S460QL, P275N-P460N, P275NL1-P460NL1, P355M-P460M, P355ML1-P460ML1, P355Q-P460Q, P355QL1-P460QL1.
Typical analysis of wire, weight %	C: 0.09 Si: 0.95 Mn: 1.67
Typical heat treatment ⁽¹⁾	Preheat and PWHT are generally not necessary but actual requirements will depend on the grade and thickness of material being welded and any design codes that apply.
Mechanical properties of weld deposit ⁽²⁾	0.2% proof stress Rp0.2%: ≥460MPa. Tensile strength Rm: ≥530MPa. Elongation 4d/5d: ≥20%. Impact ISO-V: +20°C: ≥100J -50°C: ≥47J.
Other products	SAW: S1/S2/S3/S2Si. MIG/GMAW: ER70S-2/ER70S-3/ER70S-6/SG3. TIG/GTAW: ER70S-2/ER70S-3/ER70S-6.

Notes (1) Application codes and project specifications should always be referred to for specific requirements.

(2) Actual mechanical properties will be dependent on specific welding procedure (including shielding gas, flux, PWHT etc) and should always be confirmed by approval of an appropriate welding procedure.