

IABCO A31 TIG

TIG/GTAW wire for low alloy steels

Product name	IABCO A31 TIG
Classification EN ISO	636-B: W 4M31 / W 57 A 3 4M31
Material No.	-
Classification AWS	A5.28: ER80S-D2 / ER90S-D2
Approvals	CE.
Applications	TIG/GTAW rod for welding of high strength steels, used predominantly after stress relieving. Predominantly used for welding high strength steels, providing a good combination of strength and toughness. May find used for joining creep resistance steels up to ~500°C but the IABCO A30 (ER70S-A1) wire would be the more usual choice.
Base materials	For a wide range of engineering steels with a yield strength up to 540MPa (78ksi) and UTS up to 620MPa (90ksi). ASTM: A182 grade F36, A213 grade T36, A335 grade P36, A487 grades 2A/B/C. AISI: 4130. S355NL-S460NL, S55ML-S460ML, S460QL-S550QL, P235GH-P355GH, 16Mo3, 15NiCuMoNb5-6-4. WB36 (Vallourec & Mannesmann).
Typical analysis of wire, weight %	C: 0.09 Si: 0.70 Mn: 1.95 Mo: 0.50
Typical heat treatment ⁽¹⁾	Welding procedure, including preheat temperature, interpass temperature and PWHT, will be dependent on the base material being welded and any applicable design codes.
Mechanical properties of weld deposit ⁽²⁾	0.2% proof stress Rp0.2%: ≥540MPa. Tensile strength Rm: ≥620MPa. Elongation 4d/5d: ≥17%. Impact ISO-V, -30°C: ≥27J.
Other products	MIG/GMAW: A31 MIG.

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.