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IABCO A31 MIG

MIG/GMAW wire for low alloy steels

Product name	IABCO A31 MIG
Classification EN ISO	14341-A: G 4Mo / G 50 7 M21 4Mo 14341-B: G S4M31
Material No.	-
Classification AWS	A5.28: ER80S-D2 / ER90S-D2
Approvals	CE.
Applications	MIG/GMAW wire 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 uses for joining creep resistance steels up to about 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)	M21/SG-AC-25 shielding gas: 0.2% proof stress, Rp0.2%: ≥540MPa. Tensile strength, Rm: ≥620MPa. Elongation, 4d/5d: ≥18%. Impact ISO-V, -50°C: ≥47J.
Other products	TIG/GTAW: A31 TIG.

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.