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IABCO ER410NiMo

Wire for soft martensitic stainless steel

Product name	IABCO ER410NiMo
Classification EN ISO	14343-A: G/W/S 13 4
Material No.	-
Classification AWS	A5.9: ER410NiMo (normally conforms to AWS but this must be specified if critical)
Approvals	-
Applications	For welding matching base materials and also used for surfacing CMn steels. The alloy has good cavitation resistance and finds applications in the hydro-electric power, offshore, chemical and petro-chemical idustries. Uses include hydro-electric turbines, pumps, impellers, valves and pipes. The wire has a controlled carbon content to minimise cracking risks even in highly restrained components.
Base materials	For matching soft martensitic stainless steels. ASTM: CA6NM, F6NM, S41500. EN: 1.4313, X3CrNiMo 13-4, 1.4317, G-X4CrNi 13-4.
Typical analysis of wire, weight %	C: 0.010 Si: 0.40 Mn: 0.50 Cr: 12.2 Ni: 4.2 Mo: 0.55
Typical heat treatment (1)	Preheat-interpass temperature range: 100-200°C. PWHT: A single PWHT can be carried out at ~610°C, but to obtain the maximum softening of the weld metal and stand the best chance of meeting the 23HRC hardness required by NACE for sour service, a double temper should be carried out: 650°C/5-10 hours + 620°C/5-10 hours with an intermediate air cool to ambient (or lower).
Mechanical properties of weld deposit (2)	0.2% proof stress, Rp0.2%: ≥760MPa. Tensile strength, Rm: ≥550MPa. Elongation, 4d/5d: ≥15%. Impact ISO-V, 0°C: ≥27J.
Other products	-

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.