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IABCO 2CrWV

TIG, MIG and SAW wire for low alloy steel

Product name	IABCO 2CrWV
Classification EN ISO	21952-A: G/W ZCrWV 2 1.5 MIG & TIG 24958-A: S ZCrWV 2 1.5 Sub-arc
Material No.	-
Classification AWS	A5.23: ~EB23 Sub-arc A5.28: ER90S-G MIG & TIG
Approvals	-
Applications	Welding wire for high temperature, creep resistant, modified 2.25%Cr-1.5%W ferritic steel, commonly called T23 (or P23). T23 steel is used at service temperatures up to ~600°C. V, Nb and B additions provide this 'creep strength enhanced ferritic' (CSEF) alloy with improved high temperature creep resistance compared to standard CrMo creep resistant alloys. Alloy T23 is used in the power generating industry for fossil fuel ultra-super-critical (USC) power plant boiler waterwalls.
Base materials	For matching T23, 2.25%Cr-1.5%W modified, creep resisting steels. ASTM: A213 grade T23, A335 grade P23. EN: X7CrWVMoNb9-6. HCM2S (Sumitomo).
Typical analysis of wire, weight %	C: 0.06 Si: 0.25 Mn: 0.6 Cr: 2.6 W: 1.7 Mo: 0.2 Ni: 0.5 V: 0.27 Nb: 0.06 B: 0.003 Cu: 0.1
Typical heat treatment (1)	Preheat temperature: None or 150°C depending on application. Interpass temperature: 300°C. PWHT: As-welded or 715-740°C depending on application.
Mechanical properties of weld deposit (2)	<u>As-welded</u> <u>740°C/1-2 hrs</u> 0.2% proof stress, Rp0.2%: ≥600MPa ≥500MPa Tensile strength, Rm: ≥700MPa ≥600MPa Elongation, 4d/5d: ≥15% ≥17%
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.