

IABCO 35.45

MIG and TIG wire for 35/45Nb alloys

Product name	IABCO 35.45	
Classification EN ISO	18274: S Ni Z Cr35Fe15Nb	
Material No.	-	
Classification AWS	-	
Approvals	-	
Applications	<p>Micro-alloyed 35%Cr-45%Ni-1%Nb wire for welding matching high alloy heat resistant castings. The wire includes micro-alloying to match the higher creep performance of the micro-alloyed base material.</p> <p>This alloy has very good oxidation and carburisation resistance up to service temperatures of ~1150°C. Typical applications include ethylene pyrolysis coils and reformer tubes in the petrochemical industry.</p>	
Base materials	<p>EN: 1.4889, GX40 NiCrNb 45-35. Proprietary alloys include: Centralloy ET45 Micro (Schmidt+Clemens), E3545Nb-MA (Engemasa), H46M (Doncasters Paralloy), KHR 45A (Kubota), Manaurite XT and XTM (Manoir), MO-RE 40 and 40MA (Duraloy), SEL 3545NbMA (Cronite Scomark).</p>	
Typical analysis of wire, weight %	<p>C: 0.42 Mn: 1.0 Ni: 45.5 Nb: 0.8 Zr: 0.1</p>	<p>Si: 1.5 Cr: 35.0 Mo: 0.1 Ti: 0.1 Fe: Balance</p>
Typical heat treatment ⁽¹⁾	<p>Preheat: Generally not required. Interpass temperature: 250°C. PWHT: Not normally required.</p>	
Typical mechanical properties of weld deposit ⁽²⁾	<p>0.2% proof stress, Rp0.2%: 500MPa. Tensile strength, Rm: 600MPa. Elongation, 4d/5d: 3%.</p>	
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.