

## IABCO 25.35

### MIG and TIG wire for HP40Nb

Product name	IABCO 25.35																				
Classification EN ISO	14343: G/W Z 25 35																				
Material No.	1.4853																				
Classification AWS	-																				
Approvals	-																				
Applications	<p>Micro-alloyed 25%Cr-35%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, but the wire is also suitable for the standard HP40Nb alloy and the Nb-free version of this alloy.</p> <p>These alloys have very good creep, oxidation and carburisation resistance in the typical service temperature range of 900-1100°C. Typical applications include ethylene pyrolysis coils, reformer tubes and steam superheaters in the petrochemical industry.</p>																				
Base materials	<p>ASTM A297: HP, 'HP40', 'HP40Cb'. EN: 1.4852, 1.4853, 1.4857. UNS: J95705. Proprietary alloys include: Centralloy G4852 (Schmidt+Clemens), E2535Nb (Engemasa), H39W (Doncasters Paralloy), HR33Nb (Cronite Scomark), KHR 35C (Kubota), Manaurite 36X (Manoir), MO-RE 10 and 10MA (Duraloy), SEL 2535Nb (Cronite Scomark).</p>																				
Typical analysis of wire, weight %	<table> <tr> <td>C:</td> <td>0.42</td> <td>Si:</td> <td>1.1</td> </tr> <tr> <td>Mn:</td> <td>1.8</td> <td>Cr:</td> <td>26.0</td> </tr> <tr> <td>Ni:</td> <td>35.0</td> <td>Mo:</td> <td>0.3</td> </tr> <tr> <td>Nb:</td> <td>1.3</td> <td>Ti:</td> <td>0.1</td> </tr> <tr> <td>Zr:</td> <td>0.1</td> <td>Fe:</td> <td>Balance</td> </tr> </table>	C:	0.42	Si:	1.1	Mn:	1.8	Cr:	26.0	Ni:	35.0	Mo:	0.3	Nb:	1.3	Ti:	0.1	Zr:	0.1	Fe:	Balance
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Typical heat treatment <sup>(1)</sup>	<p>Preheat: Generally not required. Interpass temperature: 250°C. PWHT: Not normally required.</p>																				
Typical mechanical properties of weld deposit <sup>(2)</sup>	<p>0.2% proof stress, Rp0.2%: 450MPa. Tensile strength, Rm: 650MPa. Elongation, 4d/5d: 10%.</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.