

## ER310

### MIG and TIG for austenitic stainless steel

Product name	IABCO ER310
Classification EN ISO	14343-A: G/W 25 20
Material No.	1.4842
Classification AWS	A5.9: ER310
Approvals	-
Applications	<p>IABCO ER310 is a 25%Cr-20%Ni wire used for welding matching heat resisting steels.</p> <p>The alloy has useful oxidation and scaling resistance up to 1200°C and good cryogenic toughness down to -196°C. The main applications for 310 are at elevated temperatures for example in furnaces.</p> <p>Unlike other standard 300 series stainless steel weld metals the 310 weld metal is fully austenitic and finds some applications where its low magnetic permeability proves useful eg drilling instrumentation.</p> <p>Can also be used for surfacing a wide range of steels.</p>
Base materials	<p>Matching 310 stainless steels.</p> <p>ASTM: 310, 310S, 310H, CK20.</p> <p>EN: 1.4841, 1.4845, X8CrNi25-21, X15CrNiSi25-21.</p> <p>UNS: S31000, S31008, S31009.</p>
Typical analysis of wire, weight %	<p>C: 0.10</p> <p>Si: 0.4</p> <p>Mn: 1.7</p> <p>Cr: 25.5</p> <p>Ni: 20.8</p>
Typical heat treatment <sup>(1)</sup>	<p>Preheat: Not required.</p> <p>Interpass temperature: 150°C.</p> <p>PWHT: Not required.</p>
Mechanical properties of weld deposit <sup>(2)</sup>	<p>0.2% proof stress, Rp0.2%: 550MPa.</p> <p>Tensile strength, Rm: 350MPa.</p> <p>Elongation, 4d/5d: 30%.</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.