

## IABCO ER100S-1 MIG

### MIG/GMAW wire for low alloy high strength steels

Product name	IABCO ER100S-1 MIG	
Classification EN ISO	16834-A:	GMn4Ni1.5CrMo G 69 6 M21 Mn4Ni1.5CrMo
Material No.	-	
Classification AWS	A5.28:	ER100S-1
Approvals	-	
Applications	<p>MIG/GMAW wire for welding high strength low alloy steels. Used for welding high strength steels in many high stress, critical applications; also exhibiting excellent toughness down to -60°C. Typical applications can be found in the mining, shipbuilding, automotive and pressure vessel industries.</p> <p>Most applications utilising the IABCO ER100S-1 MIG/GMAW wire are left in the as-welded condition; the wire is not recommended for applications that require PWHT.</p>	
Base materials	<p>For high strength fine-grained structural steels up to yield strength 690MPa (100ksi).</p> <p>HY80, Q1(N)</p> <p>S500Q-S690Q, S500QL-S690QL, S500QLN-S690QLN, P500Q-P690Q, P500QL1-P690QL1, P500QL2-P690QL2.</p>	
Typical analysis of wire, weight %	<p>C: 0.07</p> <p>Mn: 1.7</p> <p>Ni: 1.6</p> <p>Ti: 0.05</p>	<p>Si: 0.50</p> <p>Cr: 0.2</p> <p>Mo: 0.45</p>
Typical heat treatment <sup>(1)</sup>	Welding procedure, including preheat and interpass temperature, will be dependent on the base material being welded and any applicable design codes.	
Mechanical properties of weld deposit <sup>(2)</sup>	<p>M21 shielding gas: 0.2% proof stress, Rp0.2%: ≥690MPa.</p> <p>(as-welded) Tensile strength, Rm: ≥770MPa.</p> <p>Elongation, 4d/5d: ≥17%.</p> <p>Impact ISO-V, -60°C: ≥47J.</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.