

## ER316L / ER316LSi

### MIG/GMAW, TIG/GTAW and sub-arc wire for austenitic stainless steel

Product name	ER316L / ER316LSi
Classification EN ISO	14343-A: G/W/S 19 12 3 L (G/W 19 12 3 L Si for IABCO ER316LSi)
Material No.	-
Classification AWS	A5.9: ER316L (ER316LSi for IABCO ER316LSi)
Approvals	-
Applications	For welding nominally 18%Cr-12%Ni-2.5%Mo austenitic stainless steel base materials. The alloy has good general corrosion resistance and finds applications in the chemical, petro-chemical, food, brewery and nuclear industries; as well as many other general fabrication applications. Typical service temperatures are in the range -100°C up to 400°C, although the wires can be used down to lower temperatures (-196°C) if suitable procedure qualifications are carried out. The 316LSi grade is used with the MIG/GMAW process to provide improved arc characteristic and wetting of the weld bead.
Base materials	For Mo bearing austenitic stainless steels. ASTM: 316, 316L, 316LN, CF3M, CF8M. EN: 1.4401, 1.4404, 1.4406, 1.4408, 1.4429, 1.4432, 1.4436. UNS: S31600, S31603, S31653.
Typical analysis of wire, weight %	C: 0.01 Si: 0.40 (ER316LSi = 0.80%) Mn: 1.80 Cr: 18.3 Ni: 11.7 Mo: 2.60
Typical heat treatment <sup>(1)</sup>	Preheat: Not required. Interpass temperature: 250°C. PWHT: Not required.
Mechanical properties of weld deposit <sup>(2)</sup>	0.2% proof stress, Rp0.2%: ≥320MPa. Tensile strength, Rm: ≥520MPa. Elongation, 4d/5d: ≥30%.
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.