Technical data sheet 011121MBA	Cored welding wire # TUBE S 316L-G	Welding Alloys

CLASSIFICATION

ASME II C SFA 5.22 / AWS A 5.22:	EC316L
ASME IIC SFA 5.9 / AWS A 5.9:	EC316L
EN ISO 17633-A:	T 19 12 3 L M M12 1
EN ISO 17633-B:	TS316L-M M12 1
Equivalent Material number:	1.4430
ASME IX Qualification	QW432 F-N° 6 QW442 A-N° 8

DESCRIPTION

- Metal cored stainless steel wire for gas shielded arc welding
- 19% chromium - 12% nickel - 3% molybdenum - low carbon deposit
- Enhanced productivity, improved weldability, better wetting properties compared to solid wires
- Excellent weld metal quality and X-ray soundness

APPLICATIONS

TUBE S 316L-G is suitable for welding stainless steels with an alloy content between 16 to 21% Cr, 6 to 13% Ni and up to 3% Mo, stabilised and unstabilised types

Examples:

AISI	UNS	Material number	EN Symbol
316	S31600	1.4401	X5 CrNiMo 17-12-2
316L	S31603	1.4404	X2 CrNiMo 17-13-2
316LN	S31653	1.4406	X2 CrNiMoN 17-12-2
316Ti	S31635	1.4571	X6 CrNiMoTi 17-12-2
318	S31640	1.4583	X10CrNiMoNb 18-12

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Mo	S	P
0.02	1.4	0.6	19.5	12.0	2.8	0.008	0.020

Typical ferrite level: 10 FN

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A_5 [%]	CVN [J]
510	320	30	-60°C: 32

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2%[MPa]	A_5 [%]	CVN [J]
610	450	35	- 60°C: 40

SHIELDING GAS

EN ISO 14175:	M12	Ar + 0.5 % < CO_2 ≤ 2.5 with or without helium
	Z	Ar + CO_2 ≤ 0.5 % or O_2 ≤ 0.5 % with or without helium
	I1	Ar
	M13	Ar + 0.5 % < O_2 ≤ 3.0 with or without helium

OPERATING CONDITIONS

Current type	Gas flow rate	Stick out	Recovery
DC+ / pulsed	10 - 20 l/min.	12 - 25 mm	98 %

WELDING POSITIONS

TUBE S 316L-G is primarily used in the flat and horizontal positions. However, welds in other positions are also possible using the short-circuiting or pulsed arc modes of transfer.

PACKAGING

Diameter	1.2 mm		1.6 mm
	EN ISO 544 – ASME IIC SFA-5.2 M		
Spool type	S200	BS300	BS300
Weight	5 kg	15 kg	15 kg

Other packaging and other diameters: please consult us