

Technical data sheet

011121MBA

Cored welding wire
TUBE S 318L-G**CLASSIFICATION**

ASME IIC SFA 5.22 / AWS A 5.22:	EC318
ASME IIC SFA 5.9 / AWS A 5.9:	EC318
EN ISO 17633-A:	T 19 12 3 Nb M M12 1
EN ISO 17633-B:	TS318-M M12 1
Equivalent Material number:	1.4576
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 - niobium stabilised deposit
- Enhanced productivity, improved weldability, better wetting properties compared to solid wires
- Excellent weld metal quality and X-ray soundness

APPLICATIONS

TUBE S 318L-G is suitable for welding stabilised stainless steels with alloy content between 16 - 21% Cr, 6 -13% Ni and up to 3% Mo. It is also used for corrosion resistant weld overlays

Examples:

AISI	UNS	Material number	EN Symbol
316Ti	S31635	1.4571	X6 CrNiMoTi 17-12-2
316Cb	S31640	1.4580	X6 CrNiMoNb 17-12-2
318	S31640	1.4583	X10CrNiMoNb 18-12

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Mo	Nb	S	P
0.02	1.40	0.55	19.5	12.0	2.90	0.45	0.008	0.020

Typical ferrite level: 10 FN

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
520	350	25	+20°C: 40

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
620	480	32	+20°C: 60

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 318L-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

Welding products and techniques evolve constantly. All descriptions, illustrations and properties given in this data sheet are subject to change without notice and can only be considered as suitable for general guidance. This document is intended to help the user make the correct choice of product. It is his responsibility to assess its suitability for his intended application.