

Technical data sheet

011121MBA

Cored welding wire

TUBE S 309LMo-G**CLASSIFICATION**

ASME IIC SFA 5.22 / AWS A 5.22:	EC309LMo
ASME IIC SFA 5.9 / AWS A 5.9:	EC309LMo
EN ISO 17633-A:	T 23 12 2 L M M12 1
EN ISO 17633-B:	TS 309LMo M M12 1
ASME IX Qualification	QW432 F-N° 6 QW442 A-N° 8

DESCRIPTION

- Metal cored stainless steel wire for gas shielded arc welding
- 23% chromium - 12% nickel – 2% molybdenum - low carbon deposit
- Combines the quality of SMAW with the productivity of GMAW
- Excellent weld metal quality and X-ray soundness

APPLICATIONS

TUBE S 309LMo-G is suitable for cladding carbon and low alloy steels and produces a niobium stabilized first layer on such claddings.

Examples:

Dissimilar welds between stainless CrNiMo stainless steels and mild or low alloyed CMn steels, for service temperatures up to 350°C. Tube S 309LMo-G has superior resistance to dilution when compared to 309L deposits because of its higher alloy and ferrite content. Compared to the AWS 312 weldments it benefits from an improved strength/ ductility balance.

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Mo	S	P
0.02	1.40	0.55	24.0	13.0	2.80	0.008	0.015

Typical ferrite level: 20%

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
550	350	25	+20°C: 40

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
760	590	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 [l/min]	Stick out [mm]	Recovery
DC+ / pulsed	10 - 20	12 - 25	98 %

WELDING POSITIONS

EN ISO 6947: PA, PB

ASME IX: 1G, 1F, 2F

TUBE S 309LMo-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.