

Technical data sheet <small>011121MBA</small>	Stainless steel filler metal – Solid wire WA TSS/MSS 309LMo	
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CLASSIFICATION

ASME IIC SFA 5.9 / AWS A 5.9:	ER309LMo (nearest)
EN ISO 14343-A:	W 23 12 2 L Si / G 23 12 2 L Si
EN ISO 14343-B:	SS309LMo (nearest)
Equivalent material number:	1.4459
ASME IX Qualification	QW432 F-N° 6 QW442 A-N° 8

DESCRIPTION

- GTAW rod / GMAW stainless steel solid wire
- 23% chromium - 12% nickel - 2% molybdenum - low carbon deposit
- High corrosion resistance
- Suitable for repair welding and to join "hard-to-weld" steels
- Buffer layer before cladding with CrNiMo stainless steel grades

APPLICATIONS

WA TSS/MSS 309LMo are suitable for dissimilar welds between stainless CrNi(Mo) stainless steels and mild or low alloyed CMn steels, for service temperatures up to 350°C. They have superior resistance to dilution when compared to 309L deposits because of their higher alloy and ferrite content. Compared to the AWS 312 weldments they benefit from an improved strength/ ductility balance.

TYPICAL WIRE ANALYSIS (weight %)

C	Mn	Si	Cr	Ni	Mo	S	P
0.02	1.40	0.55	24.0	13.0	2.6	0.008	0.015

Typical ferrite: 20 FN

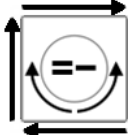
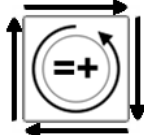
MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES (GMAW)

Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
550	350	25	+20°C: 47

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES (GMAW)

Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
620	440	32	+ 20°C: 90

SHIELDING GAS – OPERATING CONDITIONS – WELDING POSITIONS

GTAW		GMAW	
Shielding gas according to EN ISO 14175	Welding positions Current type	Shielding gas according to EN ISO 14175	Welding positions Current type
I1 (100 % argon)		M12 mixed gas (Ar + 0.5-2.5% CO ₂) M13 mixed gas (Ar + 0.5-3% O ₂)	

PACKAGING

Spools	Ø mm	0.8	1.0	1.2	1.6
Rods	Ø x1000 mm	1.6	2.0	2.4	3.2

Other diameters are available on request

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.