


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

CLASSIFICATION

ASME IIC SFA 5.9 / AWS A 5.9:	ER309L
EN ISO 14343-A:	W 23 12 L / G 23 12 L
EN ISO 14343-B:	SS309L
Equivalent material number:	1.4332
ASME IX Qualification	QW432 F-N° 6 QW442 A-N° 8

DESCRIPTION

- GTAW rod / GMAW stainless steel solid wire
- 23% chromium - 12% nickel - low carbon deposit

APPLICATIONS

WA TSS/MSS 309L are:

- Suitable for cladding carbon and low alloy steels.
- Designed for dissimilar welds between stainless steels type 304, 304L, 316, 316L, 318, 316Ti, 321, 410 or ferritic stainless steels type 1.4713, 1.4724, 1.4742, 3Cr12, to non or low alloyed CMn steels, for service temperatures up to 400°C.

Examples:

ISO/TR 15608: Groups 1, 2, 3 and 4 to groups 7, 8 and 10.
 Group 7 to groups 8 and 10.

TYPICAL WIRE ANALYSIS (weight %)

C	Mn	Si	Cr	Ni	S	P
0.02	1.80	0.5	23.3	13.0	0.008	0.015

Typical ferrite level: 20 FN

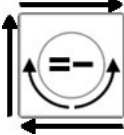
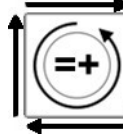
MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES (GMAW)

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
520	320	25	+ 20°C: 40

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES (GMAW)

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
600	430	32	+ 20°C: 100

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 + 0.5-5% 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