Technical data sheet 011121MBA	Stainless steel - Solid wire # WA TSS 309LSi	Welding Alloys

CLASSIFICATION

ASME IIC SFA 5.9 / AWS A 5.9:	ER309LSi
EN ISO 14343-A:	W 23 12 L Si
Equivalent Material number:	1.4332
ASME IX Qualification	QW432 F-N° 6 QW442 A-N° 8

DESCRIPTION

- Solid GTAW rod for welding austenitic Cr-Ni stainless steels
- 23% chromium - 12% nickel - low carbon deposit
- Higher silicon content improves wetting action. Standard 309L is available on request.

APPLICATIONS

- Welding stainless steels of similar composition or ferritic stainless steels.
- Joining stainless steels to mild and low-alloyed steels.
- Rebuilding and buffering before cladding or hardfacing.
- Maintenance on “hard-to-weld” steels.

Examples

Dissimilar welds between stainless steel types 304, 304L, 316, 316L, 318, 316Ti, 321, 410 or ferritic stainless steel types 1.4713, 1.4724, 1.4742, 3Cr12, to non or low alloyed CMn steels, for service temperatures up to 400°C.

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 (% by weight)

C	Mn	Si	Cr	Ni
0.02	1.70	0.80	24.0	13.0

All-weld metal typical ferrite level: 18 FN

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A_5 [%]	CVN [J]
510	320	30	+20°C: 47

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2%[MPa]	A_5 [%]	CVN [J]
600	450	35	+20°C: 100

SHIELDING GAS

EN ISO 14175: I1: Pure argon. Gas flow rate: 4 -10 l/min

OPERATING CONDITIONS

Wire diameter	1.6 mm	2.4 mm	3.2 mm
Minimum current intensity [A]	70	90	140
Maximum current intensity [A]	120	160	200
Minimum voltage [V]	10	15	16
Maximum voltage [V]	13	18	20

DCEN

WELDING POSITIONS

All positions

PACKAGING

Diameter	1.6 mm / 2.4 mm / 3.2 mm
Length	1000 mm
TUBE	5 kg

Other packaging and other diameters: please consult us