Technical data sheet 011121MBA	Stainless steel filler metal – Solid wire # WA TSS/MSS 316L	Welding Alloys

CLASSIFICATION

ASME IIC SFA 5.9 / AWS A 5.9:	ER316L
EN ISO 14343-A:	W 19 12 3 L / G 19 12 3 L
EN ISO 14343-B:	SS316L
Equivalent material number:	1.4430
UNS Number:	S31683
ASME IX Qualification	QW432 F-N° 6 QW442 A-N° 8

DESCRIPTION

- GTAW rod / GMAW stainless steel solid wire
- 19% chromium - 12% nickel - 3% molybdenum - low carbon deposit

APPLICATIONS

WA TSS/MSS 316L are suitable for welding stainless steels with an alloy content between 16 to 21% Cr, 6 to 13% Ni and up to 3% Mo, stabilised and unstabilised types

Examples:

AISI	UNS	Material number	EN Symbol
316	S31600	1.4401	X5 CrNiMo 17-12-2
316L	S31603	1.4404	X2 CrNiMo 17-13-2
316LN	S31653	1.4406	X2 CrNiMoN 17-12-2
316Ti	S31635	1.4571	X6 CrNiMoTi 17-12-2
318	S31640	1.4583	X10CrNiMoNb 18-12

TYPICAL WIRE ANALYSIS (weight %)

C	Mn	Si	Cr	Ni	Mo	S	P
0.010	1.70	0.5	19	12	2.8	0.008	0.020

Typical ferrite level: 8 FN

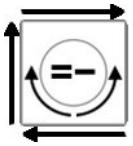
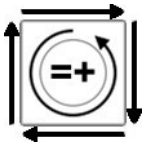
MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES (GMAW)

Rm [MPa]	Rp0.2% [MPa]	A_5 [%]	CVN [J]
510	320	30	-196°C: 27

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES (GMAW)

Rm [MPa]	Rp0.2%[MPa]	A_5 [%]	CVN [J]
600	460	35	-196°C: 35

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