


Technical data sheet 011121MBA	Coated SMAW Electrode WA TETRA 316L-E	 Welding Alloys
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CLASSIFICATION

ASME IIC SFA 5.4 / AWS A 5.4:	E316L-17
EN ISO 3581-A:	E 19 12 3 L R 3 2
ASME IX Qualification	QW432 F-N° 5 QW442 A-N° 8

DESCRIPTION

- Rutile-silica coated electrode
- Austenitic deposit in CrNiMo steel
- Joining of low carbon stainless steels and/or stabilised steels with similar compositions, resistant to corrosion
- Complements Welding Alloys cored wires TETRA S 316L-G and TETRA V 316L-G

APPLICATIONS

WA TETRA 316L-E is 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. Service temperatures are typically -110°C to about 400°C.

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 ALL-WELD METAL ANALYSIS [%]

C	Mn	Si	Cr	Ni	Mo
0.04	0.8	0.9	18.5	11.6	2.6

Typical ferrite level: 8 FN

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
510	320	25	+20°C: 40

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
590	450	38	+20°C: 60

OPERATING CONDITIONS

Electrode Ø x L [mm]	2.5 x 300	3.2 x 350	4.0 x 350	5.0 x 450
Current [A]	50 - 70	70 - 110	100 - 140	140 - 180
= +	~ 70V			

Re-drying: 1h at 250°C, if necessary.

WELDING POSITIONS

EN ISO 6947: PA, PB, PC, PF, PE
ASME IX: 1G, 2F, 2G, 3G, 4G

PACKAGING

Electrode Ø x L [mm]	2.5 x 300	3.2 x 350	4.0 x 350	5.0 x 450
Weight/box [kg]	5	5	5	6.5

Other packaging and other sizes: please consult us