

Technical data sheet

E010719JMB

**Cored welding wire
TETRA V 316L-G****CLASSIFICATION**

ASME IIC SFA 5.22 / AWS A 5.22:	E316LT1-4 - E316LT1-1
EN ISO 17633-A:	T 19 12 3 L P M21 1 - T 19 12 3 L P C1 1
EN ISO 17633-B :	TS316L-F M21 1 – TS316L-F C1 1
Equivalent Material number :	1.4430
ASME IX Qualification	QW432 F-N° 6 QW442 A-N° 8

DESCRIPTION

- Rutile flux cored stainless steel wire for gas shielded arc welding
- 19% chromium - 12% nickel - 3% molybdenum - low carbon deposit
- Attractive bead appearance, very good penetration and high productivity
- Excellent X-ray soundness
- Specifically designed for out-of-position welding, maximum productivity for completion of vertical welds
- Welded with classical economic Ar-CO₂ mixtures or CO₂

APPLICATIONS

TETRA V 316L-G 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.

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

APPROVALS

TÜV, (43.128.11), DNV-GL, LR

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Mo	S	P
0.03	1.40	0.80	19.0	12.0	2.90	0.008	0.020

Typical ferrite level: 10 FN

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
510	320	30	-196°C : 25
			Solution annealed -196°C: 47 (Lat. exp: 0.38 mm)

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
600	490	35	-196°C : 80
			Solution annealed -196°C: 47 (Lat. exp: 0.38 mm)

SHIELDING GAS

M21 (Ar + 15 - 25% CO₂), M20 (Ar + 5% < CO₂ ≤ 15%) gas mixtures or C1 (CO₂) according to EN ISO 14175

OPERATING CONDITIONS

Diameter [mm]	Current type	Current [A]	Voltage [V]	Stick-out [mm]	Gas flow
0.9	DC (+)	100 - 250	20 - 32	12 - 20	10 - 20 l/min.
1.2	DC (+)	130 - 270	22 - 35	12 - 25	10 - 20 l/min.

WELDING POSITIONS

EN ISO 6947: PA, PB, PC, PD, PE, PF, PG

ASME IX: 1F, 1G, 2F, 2G, 3F, 3G, 4F, 4G, 5G

PACKAGING

Diameter	0.9 mm		1.2 mm	
EN ISO 544 – ASME IIC SFA-5.2 M				
Spool type	S200	BS300	S200	BS300
Weight	5 kg	15 kg	5 kg	15 kg

Other packaging and other diameters: please consult us

Welding Alloys declares that TETRA V 316L-G satisfies testing according to EN 13479. The conditions for CE marking specified in Annex ZA of the standard have been complied with.

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.