

Technical data sheet

011121MBA

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

ASME IIC SFA 5.22 / AWS A 5.22:	E316LT0-4 - E316LT0-1
EN ISO 17633-A:	T 19 12 3 L R M21 3 - T 19 12 3 L R C1 3
EN ISO 17633-B :	TS316L-F M21 0 – TS316L-F C1 0
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
- Exceptional resistance to moisture pick-up
- Attractive bead appearance, automatic slag release, very good penetration and high productivity
- Excellent X-ray soundness
- Maximum performance in the flat and horizontal positions
- Welded with classical economic Ar-CO₂ mixtures or CO₂
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APPLICATIONS

TETRA S 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. 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

APPROVALS

TÜV (09295.03), DB (43.128.10), DNV, LR

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Mo	S	P
0.03	1.4	0.8	19.0	12.0	2.8	0.008	0.020

Typical ferrite level: 8 FN

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
510	320	25	-60°C: 32

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
560	420	37	-60°C: 40

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 rate
1.0	DC+	80 - 250	18 - 32	10 - 20	12 - 20 l/min.
1.2	DC+	80 - 280	17 - 38	10 - 25	12 - 20 l/min.
1.6	DC+	150 - 400	23 - 38	10 - 25	12 - 20 l/min.

WELDING POSITIONS

Flat, Horizontal

PACKAGING

Diameter	1.0 mm		1.2 mm		1.6 mm
Spool type	EN ISO 544 – ASME IIC SFA-5.2 M				
	S200	BS300	S200	BS300	BS300
Weight	5 kg	15 kg	5 kg	15 kg	15 kg

Other packaging and other diameters: please consult us

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.