

Technical data sheet

030314

**Cored welding wire
TETRA V 309L-G****CLASSIFICATION**

ASME IIC SFA 5.22 / AWS A 5.22:	E309LT1-4 - E309LT1-1
EN ISO 17633-A:	T 23 12 L P M21 1 / T 23 12 L P C1 1
EN ISO 17633-B:	TS309L-F M21 1 / TS309L-F C1 1
Equivalent Material number :	1.4332
ASME IX Qualification	QW432 F-N° 6 QW442 A-N° 8

DESCRIPTION

- Rutile flux cored stainless steel wire for gas shielded arc welding
- 24% chromium - 13% nickel - low carbon deposit
- Specifically designed for out-of-position welding
- Attractive bead appearance, very good penetration and high productivity
- Excellent X-ray soundness
- Maximum productivity for completion of vertical welds
- Welded with classical economic Ar-CO₂ mixtures or CO₂

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.

APPROVALS

TÜV, DB (43.128.09), DNV, GL, LR

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	S	P
0.03	1.40	0.70	23.5	13.0	0.008	0.020

Typical ferrite level: 20 FN

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
520	320	30	-60°C : 32

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
580	460	35	-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	Intensity [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 309L-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.