Technical data sheet 011121MBA	Cored welding wire # TETRA V 312-G	Welding Alloys

CLASSIFICATION

ASME IIC SFA 5.22 / AWS A 5.22:	E312T1-4 - E312T1-1
EN ISO 17633-A:	T 29 9 P M21 1 - T 29 9 P C1 1
EN ISO 17633-B:	TS312-F M21 1 - TS312-F C1 1
Equivalent Material number:	1.4337
ASME IX Qualification	QW432 F-N° 6 QW442 A-N° 8

DESCRIPTION

- Rutile flux cored stainless steel wire for gas shielded arc welding
- 29% chromium - 9% nickel 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-CO_2 mixtures or CO_2

APPLICATIONS

Its high alloy content and high ferrite give TETRA V 312-G extreme tolerance to hot cracking and to dilution with a wide range of base materials. Preheat can often be avoided or minimised.
The weld deposit work hardens and gives good wear and friction resistance.

Examples:

- Welding stainless steels of similar composition or ferritic stainless steels.
- Joining stainless steels to mild and low-alloyed steels.
- Buffer layers before hardfacing.
- Maintenance on “hard-to-weld” steels.
- Welding high carbon hardenable steels of known or unknown composition and most steels subject to cracking such as tool steels, manganese steels, spring steels and high-speed steels.

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Mo	S	P
0.10	1.30	0.80	29.0	8.60	0.30	0.008	0.020

Typical ferrite level: 50 FN

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A_5 [%]	CVN [J]
660	450	15*	+20°C: 32

* 22 % elongation on A_4 as required by AWS is not obtained on all fabrications.

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2%[MPa]	A_5 [%]	CVN [J]
860	650	22	+20°C: 40

SHIELDING GAS

M21 (Ar + 15 - 25% CO_2), M20 (Ar + 5%< CO_2 ≤ 15%) gas mixtures or C1 (CO_2) according to EN ISO 14175

OPERATING CONDITIONS

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

WELDING POSITIONS

All positions

PACKAGING

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

Other packaging and other diameters: please consult us