

**Technical data sheet**

011121MBA

**Cored welding wire****TETRA S 307-G****CLASSIFICATION**

EN ISO 17633-A T 18 8 Mn R M21 3 - T 18 8 Mn R C1 3  
 ASME IIC SFA 5.22 / AWS A 5.22 (E307T0-4 - E307T0-1) nearest\*  
 Equivalent Material number: 1.4370  
 \* TETRA S 307-G does not contain Mo and typically contains 6 % Mn  
 \* (ASME IX Qualification QW432 F-N° 6 QW442 A-N° 8)

**DESCRIPTION**

- Rutile flux cored stainless steel wire for gas shielded arc welding
- 18% chromium - 8% nickel - 6% manganese deposit
- Exceptional resistance to moisture pick-up
- Attractive bead appearance, very good penetration and high productivity
- Excellent X-ray soundness
- Maximum performance in the flat and horizontal positions
- Welded with classical economic Ar-CO<sub>2</sub> mixtures or CO<sub>2</sub>

**APPLICATIONS**

- Repair jobs where high strength and toughness combined with work hardening are required.
- Joining austenitic manganese steels to themselves or to other steels
- Buffer layer before hardfacing
- Maintenance on air hardenable and "hard-to-weld" steels
- Armour plate
- Joining 14% manganese steels

**Examples:**

Alloy	EN Symbol	Material number
14% Mn	X120Mn12	1.3401

**TYPICAL ALL-WELD METAL ANALYSIS**

C	Mn	Si	Cr	Ni	S	P
0.10	6.00	0.90	19.0	9.50	0.008	0.020

Typical ferrite level: 8 FN

**MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES**

Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
500	350	25	+ 20°C: 40

**TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES**

Rm [MPa]	Rp0.2% [MPa]	As [%]	CVN [J]
630	480	40	+ 20°C: 50

Hardness – as welded: 170 HB

Hardness – work hardened: 500 HB

**SHIELDING GAS**M21 (Ar + 15 - 25% CO<sub>2</sub>), M20 (Ar + 5% < CO<sub>2</sub> ≤ 15%) gas mixtures, or C1 (CO<sub>2</sub>) according to EN ISO 14175**OPERATING CONDITIONS**

Diameter [mm]	Current type	Current [A]	Voltage [V]	Stick out [mm]	Gas flow
1.2	DC+	100 - 280	23 - 33	10 - 25	12 - 20 l/min.
1.6	DC+	150 - 400	23 - 35	10 - 25	12 - 20 l/min.

**WELDING POSITIONS**

Flat, horizontal

**PACKAGING**

Diameter	1.2 mm		1.6 mm
	EN ISO 544 – ASME IIC SFA-5.2 M		
Spool type	S200	BS300	BS300
Weight	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.