


Technical data sheet <small>011121MBA</small>	Cored welding wire TETRA S B 309HT-G	
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CLASSIFICATION

EN ISO 17633-A: T Z 22 10 N H B M21 3
 Equivalent Material number: 1.4893

DESCRIPTION

- Basic flux cored stainless steel wire, with high-alloy strip for gas shielded arc welding
- Specially designed for heat resisting applications
- Exclusive slag system and fine tuning of the compositional balance insure maximum resistance to hot cracking under restraint
- Attractive bead appearance, very good penetration and high productivity
- Maximum performance in the flat and horizontal positions
- Welded with classical economic Ar-CO₂ mixtures

APPLICATIONS

TETRA S B 309HT-G weld metal has a scaling temperature beyond 1000°C. The controlled carbon and ferrite levels improve microstructural stability and high temperature strength compared to the 309(L) types whereas the lower nickel content provides better resistance against sulphur attack than the 310 grade.

Examples:

Designation	UNS	Material number	EN Symbol
309	S30900	1.4828	X15 CrNiSi 20-12
AVESTA 153MA	S30415	1.4891	X4 CrNiSiN 18 10
AVESTA 253MA	S30815	1.4893	X8 CrNiSiN 21 11

TYPICAL ALL-WELD METAL ANALYSIS

C	Mn	Si	Cr	Ni	Ce	Bi	N	S	P
0.06	1.20	1.10	22.0	10.0	0.005	< 0.002	0.15	0.008	0.020

Typical ferrite level: 5 FN

MINIMUM ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
550	320	30	+20°C: 40

TYPICAL ALL-WELD METAL MECHANICAL PROPERTIES

Rm [MPa]	Rp0.2% [MPa]	A ₅ [%]	CVN [J]
720	520	35	+20°C: 80

SHIELDING GAS

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

OPERATING CONDITIONS

Diameter [mm]	Current type	Current [A]	Voltage [V]	Stick-out [mm]	Gas flow
1.2	DC+	100 - 260	18 - 32	12 - 25	10 - 20 l/min.
1.6	DC+	150 - 300	22 - 32	12 - 25	10 - 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.